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## THE THREE VECTORS

## **Desert Storm Reconstitution**

The Army must redeploy our forces from Saudi Arabia, return them to pre-war levels of readiness, and replenish our supplies and war reserve stocks.

## **Sustained Readiness**

The Army must maintain a trained and ready force to meet ongoing commitments worldwide and for rapid action in unforeseeable contingencies.

## **The Future Army**

The Army must shape the Total Force for the future.

## ARMY FOCUS

# IS AN OFFICIAL DEPARTMENT OF THE ARMY PUBLICATION

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**Purpose**: Army Focus, published annually, provides a view of key issues facing the Army that are important for public debate. Each entry outlines an official Army position or policy on a subject of enduring importance or whose current relevance merits wide Army and public awareness. Entries concentrate on broad concerns, avoiding detailed budgetary data or issues unique to a command.

Distribution includes: Executive and Legislative Branch officials; Civilian Aides to the Secretary of the Army; active, reserve, and retired general officers; Army headquarters from major command to installation levels; Army students at Command and General Staff College and higher level professional military courses and equivalent level civilian programs; Pre-Command Course attendees; ROTC; Army officers serving as attachés, Foreign Area Officers, and in other positions in military missions abroad; foreign attachés; Army Public Affairs activities; Army libraries; sister services; the Joint Staff; the Office of the Secretary of Defense; citizens interested in national security affairs; and media representatives.

To help refine future editions, the Army welcomes reader comments.

### TABLE OF CONTENTS

		PAGE
INTRODUCTION		
NATIONAL SECURITY ENVIRONMENT		
2. 3. 4. 5.	THE THREE VECTORS THE ARMY'S STRATEGIC ROLES SHAPING THE FORCE WORLDWIDE MOBILITY SECURITY ASSISTANCE ARMS CONTROL	6 7 8 9 10 11
OPERATION DESERT STORM		13
8. 9. 10. 11.	OPERATION DESERT SHIELD OPERATION DESERT STORM EQUIPMENT PERFORMANCE LOGISTICS SUPPORT POST-DESERT STORM OPERATIONS OBSERVATIONS	16 20 27 32 35 37
QUALITY		39
14. 15. 16. 17.	PERSONNEL REDUCTIONS THE ARMY CAREER AND ALUMNI PROGRAM RECRUITING AND RETENTION THE CIVILIAN WORK FORCE ARMY COMMUNITIES OF EXCELLENCE THE ENVIRONMENT	40 41 42 43 44 45
DOCTRINE		47
	ARMY DOCTRINE JOINT DOCTRINE	48 49
FORCE STRUCTURE		51
22.	THE TOTAL ARMY OF 1995 REDUCING THE TOTAL FORCE REDUCTION OF FORWARD-BASED FORCES	52 53 54

24. BASING STRATEGY 25. CADRE DIVISIONS	PAGE 55 56	
TRAINING		
<ul><li>26. COMBAT TRAINING CENTERS</li><li>27. RESERVE COMPONENT TRAINING STRATEGY</li></ul>	58 59	
MODERNIZATION	61	
<ul> <li>28. ARMY MODERNIZATION STRATEGY</li> <li>29. NEAR-TERM PRIORITIES</li> <li>30. LONG-TERM PRIORITIES</li> <li>31. STRATEGIC LOGISTICS PROGRAM</li> <li>32. THE INDUSTRIAL BASE</li> <li>33. SUSTAINMENT</li> </ul>	62 63 64 65 66 67	
LEADER DEVELOPMENT		
<ul> <li>34. OFFICERS</li> <li>35. WARRANT OFFICERS</li> <li>36. NONCOMMISSIONED OFFICERS</li> <li>37. RESERVE COMPONENTS</li> <li>38. CIVILIAN PERSONNEL</li> <li>39. THE ARMY ACQUISITION CORPS</li> </ul>	70 71 72 73 74 75	
ACRONVMS	77	

Note: Unless otherwise specified, throughout this publication the term "Operation DESERT STORM" is used to refer to the deployment of forces and other activities conducted under Operation DESERT SHIELD as well as the actions undertaken as part of Operation DESERT STORM.

#### INTRODUCTION

This is the fifth issue of *Army Focus* since it was first published in November 1988. In that time, the United States has won three wars — the Cold War, Operation JUST CAUSE, and Operation DESERT STORM. The men and women of the U.S. Army have played an instrumental, if not decisive, role in the resolution of each of these conflicts and have clearly demonstrated the value of well-equipped, well-led, trained and ready forces.

The end of the Cold War, however, has proven less an international panacea than a catalyst for change in the international environment. While the era of global East-West confrontation is clearly over, an alternative international order has not emerged. A perspective of past international transition periods would indicate that one is unlikely to emerge quickly, if at all.

Operation DESERT STORM occurred against the backdrop of this profound change and the fundamental restructuring of U.S. national military strategy and the American armed forces. While Americans can and should be justifiably proud of the performance of the men and women of their armed forces, it is important to remember that Operation DESERT STORM was not won in 100 hours. The overwhelming success of the campaign was the product of prudent investment in personnel, doctrine, leader development, training, and equipment over more than a decade. DESERT STORM was won through the hard work and dedication of the men and women of the Total Force, the vision of past leaders, and the support of Congress and the American people. It will be essential to continue this highly successful combination while the United States shapes its armed forces for the future.

As the Army returns to building down its professional, volunteer force in this period of turbulent change, it will be imperative to maintain the quality and readiness of the force. One of the keys to success in this process will be well-informed debate on a number of key issues facing the Army and the country. Army Focus serves as a concise reference on important issues relating to the Army's role in national defense. It is intended to assist leaders in government, industry, and the armed forces, as well as the general public, in participating in this debate by providing them a useful format for commonly requested information on these issues.

#### NATIONAL SECURITY ENVIRONMENT

The years ahead offer great promise. There are, nevertheless, abundant harsh reminders that the fruits of positive change have not yet been realized. The vivid images of the collapse of the Berlin Wall have given way to the practical and daunting challenges of forging a security order in Europe that can provide a protective mantle for the peaceful evolution of resurgent democracy. Elsewhere, interstate rivalries, ethnic conflict, and religious animosities abound, fueled by the proliferation of sophisticated weapons.

#### Army Focus, September 1990

In the aftermath of Operation DESERT STORM, the national security environment will remain as complex and as varied as at any time in our history. Despite the reduced risk of East-West conflict, the war to liberate Kuwait clearly demonstrates that significant threats remain to U.S. interests around the world.

Instability in many regions of the world; widespread proliferation of nuclear, chemical, and missile technology; and aggressive, well-armed regional powers all signify that military power will continue to be an important factor in international affairs. Additionally, the continuing flow of illicit drugs into this country threatens the safety and health of the Nation, and international terrorism remains a global threat.

Further, while the Soviet Union's relations with the West have improved significantly, thus reducing the probability of direct confrontation, there remains great uncertainty about the future course of the Soviet Union. The Soviet focus remains inward, toward restructuring, but Soviet conventional and nuclear weapons modernization continues. Even in the midst of domestic turmoil and economic collapse, the Soviet Union will remain a military superpower well into the next century.

The uncertain and volatile environment that the Nation faces in the coming years makes the Army's ability to accomplish its strategic roles essential to the Nation's ability to accomplish its national security objectives. As such, the Army must remain trained and ready to meet these future challenges as we reshape the Total Force to accommodate the evolving requirements of national military strategy. The Army has crafted a carefully designed program to accomplish this.

#### 1. THE THREE VECTORS

In the years ahead, the United States will require trained and ready land forces to meet the demanding challenges of the international environment. Maintaining the readiness of Army forces as the Army reshapes itself is vital to U.S. security.

#### ARMY POSITION:

Faced with an inwardly focused and nonconfrontational Soviet Union, well-armed and potentially hostile powers in several regions of the world, and the demanding challenges of low-intensity conflict, the United States requires versatile, deployable, lethal, and expansible land forces capable of operating worldwide, on short-notice, in concert with their sister services and U.S. coalition partners.

Maintaining trained and ready forces in an era of declining resources and rising costs requires detailed planning, careful management, and adherence to the six fundamental imperatives that have shaped today's Army. As such, the focus of the Army today is on simultaneously meeting the requirements of three critical challenges or vectors.

First, the Army must redeploy its forces from Saudi Arabia and adequately reconstitute them. This involves returning equipment to pre-war levels of readiness after months of operating in one of the harshest environments in the world, replenishing supplies and war reserve stocks, and returning more than 300,000 personnel and their equipment to designated locations around the world.

Second, the Army must maintain a trained and ready force to meet ongoing commitments worldwide and for rapid action in unforeseeable contingencies. In the turbulent post-Cold War era, the United States cannot declare a "time out" to reconstitute following DESERT STORM or to reshape the Army. Within the last 18 months, U.S. forces have been committed to combat twice. Both operations required the rapid, no-notice projection of substantial land combat power from the United States and, in the latter case, from Europe. In the recent conflict, one European-based Patriot missile section deployed to Israel and was operational in less than 20 hours from the time the alert order was issued. With timelines like this, the Army clearly must sustain the readiness of its forces throughout the decade ahead.

Finally, the Army remains committed to a comprehensive plan for reshaping itself into a smaller, capable Total Force and to its vision for the future — an Army trained and ready to defend vital U.S. interests wherever they might be threatened.

#### 2. THE ARMY'S STRATEGIC ROLES

As an indispensable instrument of national policy, the Army fulfills essential roles in support of national military strategy.

#### ARMY POSITION:

The end of the Cold War and the reduction of Soviet adventurism around the world have permitted a fundamental realignment in the focus of U.S. security strategy. The focus of the national military strategy has shifted away from containment of the Soviet Union and forward defense.

The new strategy calls for achieving U.S. objectives by the projection of power to threatened areas to avert or respond to crises; by forward presence in peacetime relying less on forward-deployed forces; and by the ability to reconstitute a larger, effective defense capability should the need arise. This evolution in strategy has fundamental implications for the Army, requiring both the reshaping of Army forces and the adjustment of the Army's strategic roles.

The Army performs five strategic roles in support of this strategy:

- The Army maintains combat-ready land forces armored, light, and special operations for power projection in response to crises and other immediate requirements worldwide;
- The Army provides forward presence in areas of vital interest to the United States using units permanently based abroad and periodic deployments of units from the Continental United States (CONUS) or forward bases;
- The Army maintains forces able to reinforce forward-deployed and contingency forces;
- The Army provides support to civil authorities by participating in disaster relief, emergency assistance, and the interdiction of illicit drugs;
- The Army provides support to allied and friendly nations through peacekeeping, nation building assistance, security assistance, and Army-to-Army initiatives.

#### 3. SHAPING THE FORCE

The Army remains committed to a comprehensive plan for reshaping the Total Force to accommodate recent changes in national military strategy, the evolving international security environment, and domestic fiscal realities.

#### ARMY POSITION:

Over the past several years, the Army has developed a comprehensive road map for the future. It is based on careful assessments of the future capabilities the Army will require to fulfill its strategic roles in support of national military strategy, the threats the United States is likely to face through the end of the decade, and lessons learned from past demobilizations. This plan provides the framework that has permitted the Army to efficiently adapt to changes in the international security and domestic fiscal environments.

The essence of our plan is to significantly reduce the size of the Army and to limit near-term modernization to preserve the quality, readiness, and warfighting capabilities of the Total Army, both during the transition to a smaller force and for the future.

The plan is based on uncompromising adherence to our six fundamental imperatives — maintain a quality force; maintain solid warfighting doctrine; maintain the appropriate mix of armored, light, and special operations forces required by national strategy; conduct tough, realistic training; continuously modernize to improve warfighting capabilities; and develop competent, confident leaders. It is also based on maintaining a controlled and rational build-down process that will minimize the turbulence which is so detrimental to readiness and enable us to limit the impacts of involuntary release on soldiers, civilians, and their families.

Current plans envision building down from today's 5-corps, 28-division force to a 4-corps, 20-division force by 1995. At that time, the Army will be a perilously small land force for a superpower with worldwide responsibilities. As the Army continues to shape the force for the future, it will be essential to minimize the risks inherent in this smaller force by limiting the turbulence created by rapid force reductions, by maintaining the quality and readiness of the force, and by maintaining the carefully crafted design of the Army's programs and budgets. The United States can afford a smaller Army; it cannot afford one that is not trained and ready.

#### 4. WORLDWIDE MOBILITY

The essence of the new national military strategy is a credible power projection capability. Such a strategy cannot be executed without trained and ready land forces and adequate worldwide mobility.

#### ARMY POSITION:

The ability of the United States to project and sustain combat power from the United States or forward bases is critical to the attainment of U.S. national security objectives. With the unified commanders, Joint Staff, and other services, the Army is exploring improvements in every leg of the worldwide mobility triad (airlift, sealift, and prepositioning). Concurrently, the Army is also refining its doctrine, organizations, training, equipment, force structure, and deployment procedures to meet the requirements of rapid power projection and to further enhance its deployability and versatility.

The Army is postured to rapidly deploy combat-ready forces worldwide by a combination of air and sealift. Airlift provides the capability to project Army forcible-entry forces to establish a rapid presence anywhere in the world and to transport soldiers and high priority cargo to theaters of operation. Retention of sufficient numbers of worldwide lift aircraft is essential to the effective execution of the national military strategy. The Army strongly supports the C-17 program and rebuild programs to extend the service life of the aging C141-B and C-5B fleets.

Sealift provides the capability to move combat units, support forces, and long-term sustainment needs. To meet U.S. defense requirements, the Army requires the capability to move two armored divisions and their support to a theater of operations anywhere in the world in about 30 days; the remainder of an entire corps must follow in about 75 days. As such, the Army supports expanding the current fleet of immediately available Fast Sealift Ships and improving the Ready Reserve Force with modern Roll-On Roll-Off ships.

Equipment and supplies prepositioned overseas can enhance the versatility and rapidity of U.S. response to crises. The Army's afloat prepositioned materiel proved very effective in supplying U.S. forces in Operation DESERT STORM. The positioning of unit sets afloat in a particular part of the world, however, provides only marginal advantages over fast sealift (if it happens to be positioned near the trouble spot), is costly, and limits the Army's versatility and ability to tailor contingency-specific force packages. Accordingly, while the Army supports afloat prepositioning of materiel and supplies and plans to enhance this capability, it does not view the positioning of unit equipment sets afloat as the best alternative to reduce current and projected mobility shortfalls.

#### 5. SECURITY ASSISTANCE

The United States provides security assistance to friendly countries to promote their internal development and self-defense capability and to support mutual security interests.

#### ARMY POSITION:

Security assistance programs are designed to help friendly and allied nations enhance their defense capabilities. These programs work in conjunction with other U.S. Government programs and initiatives to promote military professionalism and training and to enhance respect for human rights and democratic institutions.

U.S. security assistance programs made a significant contribution to the warfighting capabilities of coalition armies in Operation DESERT STORM. Further, the military infrastructure that countries in the regions had built through previous military sales contracts facilitated the deployment of U.S. forces. During the course of the conflict and in its aftermath, a number of countries in the region placed substantial new requests for U.S. materiel, training, and services to replace items expended in the conflict and to improve their ability to deter aggression by being able to defend themselves in future conflicts. Efforts are ongoing to develop these requirements and to design effective assistance programs.

In support of the U.S. war against drugs, the Army is supporting Department of Defense efforts to provide counternarcotics assistance to Bolivia, Colombia, Peru, Belize, Ecuador, Jamaica, and Mexico. Through security assistance programs, the Army is providing equipment, services, and training to assist host country efforts. Types of equipment being provided include helicopters, aviation spares, uniforms and individual equipment, small arms, and ammunition. Training is also being provided in areas such as intelligence, communications, special operations, aviation, and aviation maintenance.

In the face of changing national security priorities and declining budgets, the Army must ensure that security assistance programs are an even more flexible and effective instrument of national security strategy. Where possible, programs must stress training and professional development as the most cost effective ways to improve the military capabilities of U.S. friends and allies.

#### 6. ARMS CONTROL

The United States pursues arms control initiatives to complement its defense capabilities and to enhance national security while reducing levels of armaments and the risk of war.

#### **ARMY POSITION:**

Arms control enhances national security by achieving mutual, verifiable force reductions that reduce the risk of military conflict. Agreements currently in place or being negotiated will significantly improve the prospects for peace and stability in the regions of the world where they are implemented.

The Treaty on Conventional Armed Forces in Europe (CFE) reductions will largely eliminate Soviet numerical superiority in combat systems. Ratification of the CFE Treaty has been delayed pending resolution of several issues concerning Soviet interpretation of a significant treaty provision.

Another important aspect of arms control is the establishment of confidence-building measures. The Vienna 1990 Document, a major agreement signed by the 34 nations of the Conference on Security and Cooperation in Europe, is designed to reduce tensions in Europe by making more transparent each nation's peacetime military structure and activities.

In the area of intercontinental-range nuclear weapons, the United States and the Soviet Union continue to work towards the goal of completing the Strategic Arms Reductions Treaty (START) agreement this year. START goals represent deep, equitable, and effectively verifiable reductions in the number and destructive power of U.S. and Soviet strategic offensive nuclear arms.

Outside of Europe, it seems clear that arms control and confidence-building measures in other regions of the world will become increasingly important in the future. Work is underway to develop regional arms accords in the Middle East. Similar agreements may also be possible on the Korean peninsula.

Negotiations are also ongoing for a comprehensive and effectively verifiable global chemical weapons ban.

#### **OPERATION DESERT STORM**

On February 23, 1991, the United States and its coalition partners faced more than 43 Iraqi divisions, thousands of tanks, and half a million Iraqi soldiers in the Kuwaiti Theater of Operation. One hundred hours later, the Iraqi Army lay shattered and burning; organized resistance had ceased; and the allied coalition had won a victory of unprecedented dimensions.

Although Operation PROVIDE COMFORT continues and the task of rebuilding Kuwait has scarcely begun, it seems clear that the coalition victory in Operation DESERT STORM represents a watershed event for the international community, for our Nation, and for the U.S. armed forces. In the first major challenge of the post-Cold War period, the international community has clearly demonstrated to would-be aggressors that it can muster the will, the cohesion, and the military capabilities to punish aggression. The leadership role played by the United States and the overwhelming support of the American people for their armed forces have clearly demonstrated that this country retains both the national will and the capabilities to confront the turbulent decade ahead.

Victory in Operation DESERT STORM, however, was not won in just 100 hours. The success of U.S. forces represents over seven months of arduous preparations and over a decade of planning, leader development, training, and investment. Consider the magnitude of the challenge facing the U.S. armed forces on August 7, 1990. The United States had to deploy a half-million combat-ready men and women, their equipment, and their supplies from the United States and overseas bases to the theater of operation; to build a massive logistical infrastructure over an 8,700-mile supply line; to plan and orchestrate a successful joint air, land, and sea campaign against the fourth largest army in the world; and to prepare for and conduct combat operations in one of the harshest operating environments in the world. These challenges were met by the trained and ready professionals of America's Total Force — soldiers, sailors, airmen, coast guardsmen, and marines from both the active force and the Reserve Components and the dedicated civilian work force.

Operation DESERT STORM enabled the services to examine some of the planning assumptions, policies, and capabilities that will be important for the future. The Total Force Policy, the Ready Reserve Force, and the Civil Reserve Air Fleet all were tested in actual operations. As the lessons learned from the operation will be extremely valuable in formulating future policies and programs, the Army has an extensive process underway to capture and assess them.

### **OPERATION DESERT STORM CHRONOLOGY**

August 2, 1990*	Iraq invades Kuwait
August 6	Saudi Arabia requests United States assistance in its defense
August 7	Operation DESERT SHIELD begins (C-Day)
August 8	Lead Air Force elements from the 1st Tactical Fighter Wing
_	arrive in theater
August 9	Lead Army elements from the 82nd Airborne Division
_	arrive in theater
August 10	Secretary of the Navy activates Ready Reserve Force
	First Fast Sealift Ship (FSS) reaches Savannah and begins
	loading
August 13	First ship (FSS Capella) departs Savannah with equipment of
	the 24th Infantry Division (Mechanized)
August 14	82nd Airborne Division Ready Brigade-1 closes** and moves
	to secure ports
August 15	First Marine Maritime Prepositioning Ships (MPS-2) arrive
15	in Saudi Arabia
August 17	First Army prepositioned ship arrives in Saudi Arabia
	Civil Reserve Air Fleet 1 (CRAF 1) activated
August 22	Presidential Executive Order # 12727 authorizes first use of
	200K Selected Reserve call-up and limited implementation
August 22	of Stop Loss Program***Secretary of Defense authorizes call-up of 25,000 Army
August 23	National Guardsmen and Army Reservists in combat support
	and combat service support units
August 27	Army activates first Reserve Component (RC) units
rugust 21	First Fast Sealift Ship arrives in Saudi Arabia and begins
	offloading; first M1 Abrams tanks arrive in theater
August 29	82nd Airborne Division closes in theater
September 1	Stop Loss Program goes into effect
September 2	I Corps designated to replace XVIII Airborne Corps as
	primary contingency corps for worldwide operations
September 6/8	Marine MPS 3 and 2 complete offloading
September 7	First Army RC units deploy to Saudi Arabia
September 12	Major combat elements of 24th Infantry Division
_	(Mechanized) close in theater
October 6	101st Airborne Division (Air Assault) closes in theater
October 22	1st Cavalry Division closes in theater
November 2	M1 — M1A1 tank replacement program begins

November 8	VII Corps and 1st Infantry Division alerted for deployment
November 13	Presidential Executive Order # 12733 extends Selected Reserve call-up to 180 days
November 14	Secretary of Defense increases Army Selected Reserve call-up authority to 80,000 and authorizes call-up of RC combat units
November 21	VII Corps units begin deployment to Saudi Arabia
November 30	First Army National Guard roundout brigades called to active duty
December 1	XVIII Airborne Corps closes in theater
	Secretary of Defense increases Army Selected Reserve call-up authority to 115,000
December 6	First ship carrying VII Corps equipment arrives in theater
January 15, 1991	U.N. deadline for Iraqi withdrawal
January 17	Operation DESERT STORM begins (D-Day)
January 18	Presidential Executive Order # 12743 declares Partial Mobilization (M-Day)
January 18/19	Iraq fires first SCUD missiles at Israel and Saudi Arabia
January 20	XVIII Airborne and VII Corps begin movement to forward assembly areas for ground phase of the campaign
February 3	XVIII Airborne and VII Corps (minus elements of 3rd
,	Armored Division) complete movement to forward assembly areas
February 6	VII Corps closes in theater with the arrival of last elements of 3rd Armored Division
February 24	Coalition forces begin ground phase of campaign (G-Day)
February 28	President orders cessation of offensive operations
	48th Infantry Brigade (Georgia Army National Guard) validated for deployment
March 1	TASK FORCE FREEDOM begins emergency recovery operations in Kuwait
March 8	Redeployment of 24th Infantry Division begins
April 7	Iraq accepts U.N. cease fire conditions and U.N. resolutionsOperation PROVIDE COMFORT begins

<sup>\*</sup> All dates reflect Greenwich Mean ("ZULU") Time.

<sup>\*\*</sup> The term "closes" means the arrival of a unit's deploying personnel and equipment into a specified destination, in this case the Kuwaiti Theater of Operation.

<sup>\*\*\*</sup> The Stop Loss Program involves the execution of Presidential authority to suspend the laws relating to separations and retirements in order to retain in the services a sufficient pool of immediately available, fully trained manpower to meet operational requirements.

#### 7. OPERATION DESERT SHIELD

Operation DESERT SHIELD was the largest and fastest military deployment in history. It clearly demonstrated the complementary nature of the U.S. armed forces and the value of a trained and ready Army.

#### ARMY POSITION:

In the early hours of August 2, 1990, an Iraqi force of over 100,000 soldiers, spearheaded by three armored divisions of the elite Republican Guard, invaded Kuwait. On August 7th, President Bush directed the deployment of U.S. forces in response to a request for assistance from the government of Saudi Arabia. Operation DESERT SHIELD had begun. The first U.S. soldier, a member of the 82nd Airborne Division, was on the ground in Saudi Arabia within 31 hours of the initial alert order. What followed over the subsequent months was the fastest build up of troops and equipment in U.S. history as American forces deployed in support of the President Bush's stated objectives: unconditional Iraqi withdrawal from Kuwait; restoration of the legitimate Kuwaiti government; protection of U.S. citizens; and reestablishment of stability in the Persian Gulf region.

Operation DESERT SHIELD was a two-phase operation. It involved the initial deployment of forces to deter further Iraqi aggression and to defend Saudi Arabia and the subsequent deployment of forces to provide the coalition with a robust counteroffensive capability to evict the Iraqi army from Kuwait. To put this in perspective, the operation was the equivalent of moving the cities of Richmond, Virginia, and Des Moines, Iowa, over 8,000 miles and setting them up again in the desert. Operation DESERT SHIELD also involved the construction of a mammoth logistics infrastructure, preparations in-theater for combat operations, and substantial in-theater modernization of Army and Marine units, providing them the most capable modern systems.

In the initial phase, the United States moved quickly to increase its naval, air, and land presence in the region. As the USS Independence Carrier Battle Group moved into the Gulf of Oman, the 1st Tactical Fighter Wing, elements of the Army's 82nd Airborne Division, and Patriot air defense units deployed rapidly by air to secure the ports and arrival airfields. Marine Maritime Prepositioning Ships and Army and Air Force aviation units followed to bridge the gap between the early deploying forces and the arrival of armored forces from the United States. One of these units, the 24th Infantry Division (Mechanized) was prepared for combat and occupying tactical assembly areas 35 days after its initial notification. With over 1,500 armored vehicles, the division significantly enhanced the land combat power available to the theater commander. CENTCOM's combat power was further

bolstered with the arrival of the 101st Airborne Division (Air Assault) in early October, and the arrival of the 3rd Armored Cavalry Regiment and the 1st Cavalry Division in mid-October. All of these units, representing over four and one-third combat divisions, were placed under the control of the XVIII Airborne Corps.

As the XVIII Airborne Corps and its supporting units completed deployment, a second Army corps — VII Corps — was deployed to the theater to provide the coalition a counteroffensive capability. VII Corps deployed from Europe with the 2nd Armored Cavalry Regiment, the 1st and 3rd Armored Divisions, and a forward-deployed brigade from the 2nd Armored Division. The 1st Infantry Division (Mechanized) which deployed from the United States was also assigned to the corps. Although these forces did not begin deploying until late November, they were in place and combat-ready by early February. With the arrival of VII Corps, the Army, supported by its sister services, had deployed a force equivalent in size to eight divisions and their supporting forces — some 300,000 soldiers — and 60-days of supplies from the United States and Europe in six months time.

One of the great success stories of Operation DESERT SHIELD (and later DESERT STORM), was the demonstrated effectiveness of the Total Force. From the early stages of the operation to its conclusion, the superb performance of Reserve Component (RC) soldiers and units was critical to the success of the operation.

The President authorized the call-up of the Selected Reserves on August 22nd. The next day, the Secretary of Defense authorized the services to call-up RC combat support and combat service support forces whose unique skills and capabilities were essential to the success of the deployment. Initially, the Army called over 200 RC units (approximately 24,000 soldiers) to active duty for a period of 90 days. The majority of these units deployed to Saudi Arabia to provide critical services such as water purification and distribution, fuel handling, transportation, port operations, supply and services, chemical defense, maintenance, and medical support. Many other reservists served in the United States and Europe to replace deploying active forces.

In November, the President extended the initial call-up authority to 180 days, and the Secretary of Defense authorized the call-up of RC combat units. Acting on this authority, the Army activated three combat "roundout" (designed to fight with active divisions) brigades and two field artillery brigades from the Army National Guard. The 142nd and 196th Field Artillery Brigades conducted post-mobilization training in the United States and deployed to Saudi Arabia in time to make a substantial contribution to the coalition's firepower during Operation DESERT STORM. The combat brigades were called-up in the event reinforcements were

required in an extended conflict or to provide rotational units in case of a prolonged deployment. They underwent essential post-mobilization training at Fort Hood, Texas, and at the National Training Center (NTC), Fort Irwin, California, to achieve required standards for combat. Two of the brigades successfully completed challenging training programs at the NTC, and one, the 48th Infantry Brigade, was validated for deployment on the day that offensive operations were terminated.

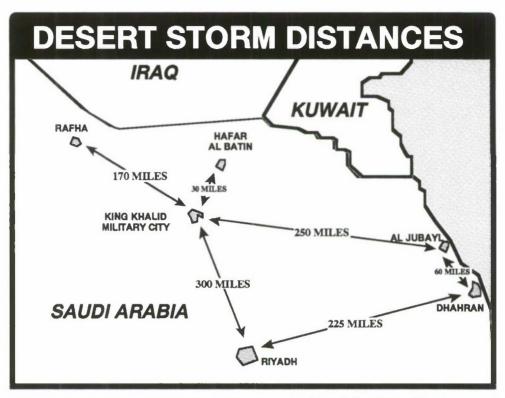
In January, following the initiation of the air phase of the campaign, the President declared partial mobilization, increasing the Army's call-up authorization to 220,000 soldiers for 12 months and permitting the call-up of Individual Ready Reserves. Over 1,000 RC units and almost 140,000 citizen-soldiers served with distinction in the Army during the conflict.

Another program that proved its worth was in-theater modernization. The Army made a concerted effort to equip its soldiers with the most capable systems available. As a result, some units in Saudi Arabia received the most modern equipment available prior to the start of the ground phase of the campaign. For example, the Army replaced older items of equipment with over 1,000 M1A1 tanks (enough to equip three divisions and one armored cavalry regiment); almost 600 M2/M3A2 Bradley Fighting Vehicles (enough to equip one division and two ACRs); over 100 Armored Combat Earthmovers (enough to equip three divisions and two ACRs); and over 1,000 HEMTTs (Heavy Expanded Mobility Tactical Truck), the latest logistical support vehicle, without which the sweeping flanking maneuver of the VII Corps and XVIII Airborne Corps would not have been possible. This effort greatly improved soldiers' confidence and units' capabilities, and it significantly contributed to the successful and rapid completion of ground combat operations with minimal U.S. casualties.

Finally, the logistics challenges of the operation were unprecedented. Beyond the reception ports and airfields there was little infrastructure in place in Saudi Arabia. It had to be built up from the fine, gritty sand of the desert in the searing heat of the Saudi summer. This extremely harsh environment also challenged the ingenuity of the Army's equipment operators and maintenance personnel to consistently maintain their systems in operating condition. Further, the vast expanse of the Saudi desert required the movement of personnel, equipment, and supplies over extended distances as the coalition established three forward logistics bases and prepared to defend (Map #1). The success of the operation rests in large part with the imaginative strategies and the hard work of Army logisticians.

In executing Operation DESERT SHIELD, the United States moved more combat power over greater distances in less time than at any other time in history. Credit for the successful deployment, modernization, and preparation of U.S. forces rests squarely on the shoulders of the resourceful men and women of the Total Force.

The support provided by joint movement planners; the pilots, ship's captains, and crews that moved the force; and the civilians from throughout the Army and industry who served from the forward foxholes to the industrial base enabled the U.S. armed forces to overcome daunting challenges and get the job done and done well.



MAP 1: Straight line distances between major Saudi Arabian cities involved in Operation DESERT STORM.

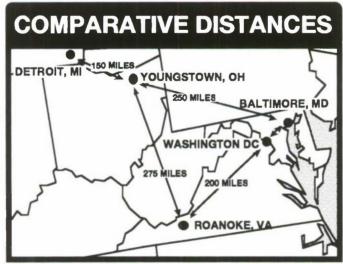


Figure 1: Distances between major Saudi Arabian cities involved in Operation DESERT STORM compared to U.S.cities.

#### 8. OPERATION DESERT STORM

Operation DESERT STORM was an integrated air-land-sea campaign in which every element of America's armed forces played a vital role. The overwhelming success of the campaign is the product of prudent investment in personnel, doctrine, leader development, training, and equipment over more than a decade.

#### ARMY POSITION:

On November 29, 1990, the United Nations Security Council passed Resolution 678 authorizing members to use "all necessary means" to enforce previous U.N. resolutions if Iraq did not withdraw from Kuwait by January 15, 1991. The stage had been set. When Iraq did not withdraw and all diplomatic efforts to resolve the crisis had failed, coalition forces turned the DESERT SHIELD into a DESERT STORM.

Operation DESERT STORM began in the early morning hours of January 17th, when elements of the 101st Airborne Division (Air Assault) destroyed two critical Iraqi air defense radar sites with Hellfire missiles fired from eight AH-64 Apache helicopters. This action opened an air corridor that the coalition air forces fully exploited in the early hours of the air phase of the campaign. Over the next 34 days, coalition air forces focused initially on gaining the initiative by destroying critical Iraqi targets (e.g., command and control facilities, missile sites, nuclear facilities, and chemical, and biological weapons sites) before shifting its focus to the attrition of the Republican Guard, the Iraqi center of gravity, to set the stage for land operations.

From January 17th to February 24th, while the coalition air forces relentlessly reduced Iraqi defenses, coalition land forces completed their preparations for combat. They clandestinely repositioned from their defensive sectors to forward assembly areas for the attack and began to shape the battlefield for the land phase of the campaign. The swiftness of the allied success belies the magnitude of the preparations — essential to the rapid victory — that took place during this time.

In positioning forces and supplies for the attack, logisticians and movement planners faced monumental challenges. They had to move the coalition's 17 divisions and their sustainment laterally hundreds of miles (Map #1) over a very limited road network. The U.S Army alone moved two corps — approximately 65,000 armored and support vehicles — from their defensive positions in eastern Saudi Arabia to their forward assembly areas west of Hafar al Batin. The move continued 24 hours a day for two weeks, and, with a vehicle passing checkpoints

every 15 seconds, traffic on the Main Supply Routes (MSRs) required extremely careful management.

By this time, the in-theater support structure had grown from its austere beginnings into a fully capable theater support command. In keeping with its motto — "Good Logistics Is Combat Power" — the 22nd Support Command also established two additional forward logistical bases to support the land phase of the campaign during this period and to augment the three that had been established in December. This involved the movement of thousands of tons of supplies — food, water, fuel, ammunition, spare parts — over the same constrained road network to logistical bases north of King Khalid Military City. The fact that this repositioning and logistical build up was completed on schedule without being discovered by the Iraqi forces was vital to the success of the operation.

Throughout this period the soldiers and leaders also focused on battle preparation. Attack plans were formulated and tested in simulated combat using the Army's Battle Command Training Program, a training simulation for corps and division commanders, that was taken to Saudi Arabia for this purpose. The plans were then refined, finalized, issued, and rehearsed. The rehearsals were particularly important as a major portion of the initial allied effort involved the breaching of extensive Iraqi minefields, obstacles, and fortifications — operations that involve very close coordination among participating elements.

Coalition forces fought a reconnaissance/counter-reconnaissance battle with Iraqi forces during this period to shape the battlefield for the attack and to deny the enemy critical information about the disposition of allied forces. Army forces made helicopter raids and conducted armored reconnaissance missions into Iraq and Kuwait to verify intelligence estimates. Army indirect fire units focused on destroying the command, control, communications, intelligence gathering, and fire support capabilities of the first echelon Iraqi divisions. In an innovative approach, U.S. and allied forces staged artillery raids to pinpoint forward Iraqi artillery positions and destroy them with indirect fire. Extensive use was also made of Kiowa Warrior (OH-58D) scout helicopters and Apache (AH-64) attack helicopters flying at night to identify Iraqi positions and engage enemy observation posts. Copperhead (laser guided artillery rounds), Hellfire missiles, and the Army Tactical Missile System (ATACMS) were used extensively to engage command and control headquarters, for counter-battery fire, and to suppress air defense sites, allowing the Air Force unhindered access to dug-in Iraqi forces.

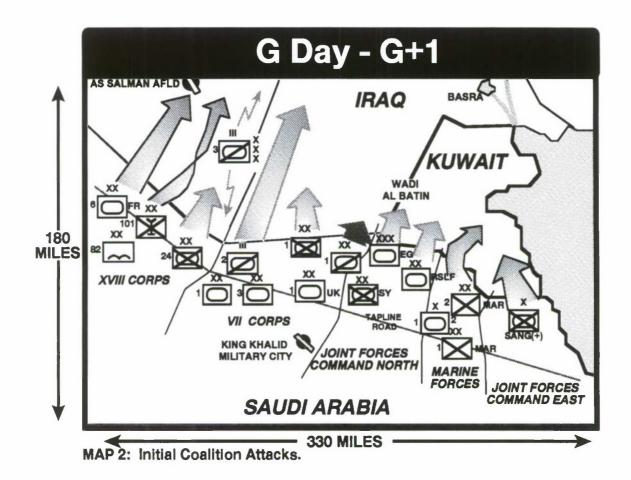
Throughout this period, the 11th and 69th Air Defense Artillery Brigades, armed with the Patriot missile system, ably demonstrated their effectiveness by consistently intercepting SCUD missiles fired from Iraq against Saudi Arabia and Israel. The success of the Patriot engagements proved to be a militarily effective

counter to Iraqi SCUD terrorist attacks on innocent civilians and enormously boosted civilian morale and enhanced coalition cohesion.

The final phase of Operation DESERT STORM began in the early morning hours of February 24th. The objective of the ground phase of the campaign was to drive the Iraqi forces from Kuwait. This required the defeat of the Republican Guard divisions in southern Iraq. The plan for achieving this objective envisioned a deliberate attack along the Kuwait-Saudi Arabia border by the 1st Marine Expeditionary Force and Arab coalition forces while two Army corps — more than 200,000 soldiers — swept around to the west of the Iraqi defenses to envelop them and to strike deep into Iraq to sever Iraqi lines of communication and to isolate and destroy the Republican Guard.

The coalition attack began with supporting attacks on both flanks and a feint in the center of the sector. The XVIII Airborne Corps attacked in the west with two divisions. The French "Daguet" Division (6th French Light Armored Division), supported by the 2nd Brigade of the 82nd Airborne Division, attacked to secure As Salman Airfield (Map #2) and to protect the coalition west flank. The 101st Airborne Division (Air Assault) conducted the largest air assault operation in history to secure a forward operating base deep in Iraq. The division would use this base to conduct follow-on operations to seize key terrain on the Euphrates River and to block Highway 8 to reinforcements from Baghdad. On the coalition's eastern flank, the 1st and 2nd Marine Divisions, supported by the "Tiger" Brigade of the 2nd Armored Division and coalition forces of the Saudi Arabian National Guard, attacked north into Kuwait. In the center, the 1st Cavalry Division conducted a feint just west of the Wadi al Batin as part of the plan to deceive the Iraqis as to the location of the coalition's main effort. The deception plan was a major element in the success of the operation. When coalition forces swept in on the Iraqi defenses from the west, they found them oriented to the east and south, allowing the allies to attack them from the flanks and rear.

Based on the early successes of the 101st Airborne Division (Air Assault) and the two Marine divisions, the theater commander accelerated initiation of the main coalition effort by 14 hours. The XVIII Airborne Corps attacked to the west of the Iraqi obstacle belt with the 24th Infantry Division and the 3rd Armored Cavalry Regiment to seize initial objectives inside Iraq (Map #2). VII Corps attacked to the east of XVIII Airborne Corps with the 1st Infantry Division penetrating the main Iraqi defensive belt, establishing 24 lanes through a complex wire and mine obstacle system in eight hours — at night. This allowed the 1st (UK) Armored Division to attack through the breach and to secure the corps eastern flank. To the west of this effort, the 2nd ACR led the attack of the 1st and 3rd Armored Divisions around the flank of the obstacle belt and into Iraq. On the VII Corps eastern flank, Arab coalition forces began their attack into Kuwait.



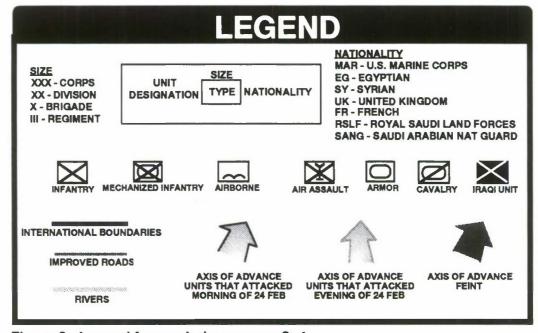
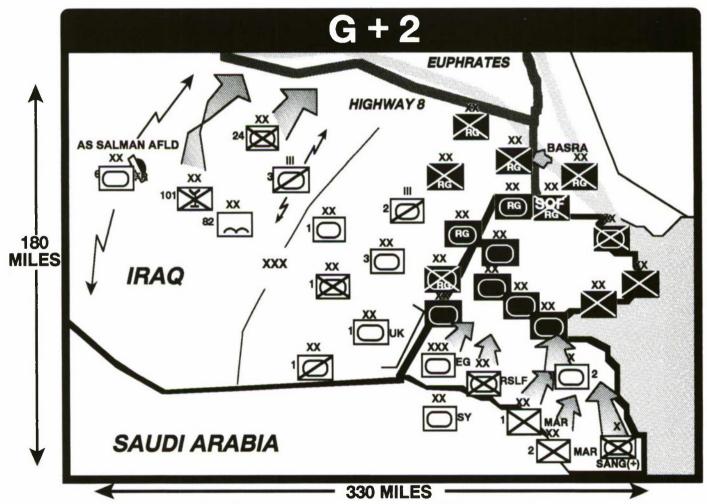


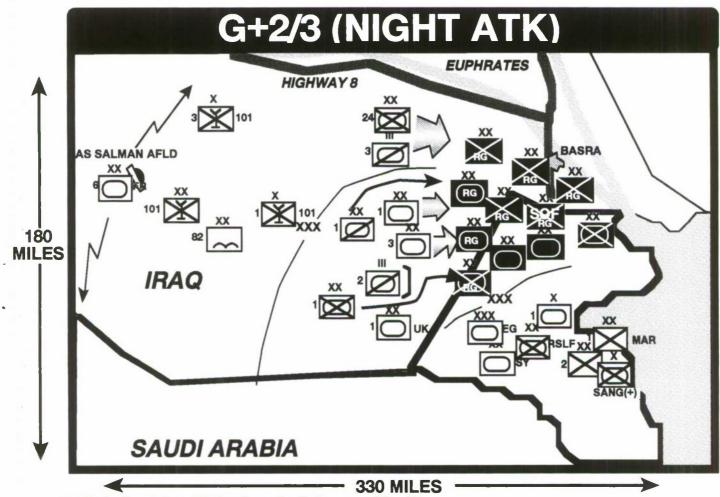
Figure 2: Legend for symbols on maps 2-4.

The stunning initial successes of the coalition are now history. By sunset on February 26th (Map #3), VII Corps had fixed the Republican Guard and XVIII Airborne Corps had sealed the battlefield. The armored divisions of the Iraqi second echelon had been destroyed or captured (by this time, the attack had already generated over 20,000 prisoners of war). The XVIII Airborne Corps had secured the coalition west flank and controlled Highway 8 with units from the 101st Airborne Division (Air Assault) and the 24th Infantry Division. After attacking across more than 200 miles of inhospitable desert, the 24th Infantry Division had reached the Euphrates River, cutting off Iraqi western routes of withdrawal, and had turned east with the 3rd ACR to engage the Republican Guard. VII Corps had fixed two of the three Republican Guard divisions in northern Kuwait, and both corps were establishing forward logistics bases essential for future operations and preparing to continue the attack. Throughout the theater of operations, coalition forces held the initiative, and two powerful armored corps were poised to destroy the Iraqi Army.



MAP 3: Coalition Positions at Sunset, February 26th.

Coalition forces attacked on the night of February 26th (Map #4), with VII Corps making the main attack against three of the Republican Guard divisions — the Tawakalna, the Medina, and the Hammurabi — occupying hasty defensive positions. In the south of the corps sector, the 1st Infantry Division conducted a night passage of lines through the 2nd ACR and immediately made contact. To their north, the 1st and 3rd Armored Divisions pressed the attack east while the 1st Cavalry Division attacked around the 1st Armored Division on the corps northern flank to prevent an Iraqi attempt to break through the attacking coalition forces. Throughout that night and during the day of February 27th, the allies pressed relentlessly forward against crumbling Iraqi resistance. Maneuvering abreast from the Euphrates River into central Kuwait, the XVIII Airborne and VII Corps pressed the attack toward the Iraqi city of Basra and the coast of Kuwait.



MAP 4: Coalition Night Attack, February 26 - 27.

By the morning of February 28th, the Republican Guard divisions were effectively routed and incapable of further coordinated resistance. The Iraqi Army was in flight from Kuwait or surrendering to allied forces in large numbers. At 0500 hours on the 28th, 100 hours from the start of the ground campaign, in recognition of achieving the operations' military objectives, President Bush called for coalition forces to cease offensive operations.

In the period immediately following the cessation of hostilities, U.S. forces exercised careful restraint to avoid contact with the disoriented, but still dangerous, Iraqi forces attempting to break out of the encirclement and find their ways back to Iraq. On the morning of March 2nd, a large Iraqi armored column approached and then attacked elements of the 24th Infantry Division, 30 miles west of the Iraqi city of Basra. In a brief but furious combined arms battle, the soldiers of the 24th destroyed over 500 Iraqi vehicles in the last major engagement of the war.

Throughout the conflict, Army special operations forces (SOF) also made substantial contributions to the success of coalition efforts. Army Special Forces units conducted training in combined arms operations for over 100 coalition units and later supported Kuwaiti forces in the liberation of Kuwait City. Other Army SOF performed special reconnaissance operations for U.S. units and conducted combat search and rescue missions for downed coalition pilots. Army Psychological Operations units helped prepare the battlefield by developing and disseminating information to counter Iraqi disinformation, encourage Iraqi soldiers to surrender, and provide instructions that enhanced the safety of the local population during combat operations. Army Civil Affairs units provided planning assistance to Kuwait and Saudi officials for reconstruction and for the handling of refugees and prisoners of war.

In 100 hours, coalition forces had shattered the fourth largest army in the world. This overwhelming victory was a profound testimony to capabilities of the professional men and women of the Total Force and to more than a decade of investment that produced the well-trained soldiers, the effective warfighting doctrine, the competent leaders, and the equipment that were the keys to victory. All Americans can be justifiably proud of the performance of their armed forces in one of the most successful combat operations in history.

### 9. EQUIPMENT PERFORMANCE

The ability of U.S. forces to overwhelm the Iraqi military while limiting American and civilian casualties was due, in large part, to the effectiveness of superbly trained soldiers armed with the products of American technology.

#### ARMY POSITION:

The Army is extremely pleased with the performance of its equipment throughout the months of operating in one of the harshest environments in the world and the hours of combat. It is clear that technology provided the American soldier with a substantial edge over his Iraqi counterpart. It should also be clear, however, that a technological edge alone is not sufficient to produce results of the magnitude of the U.S. victory. Highly-trained soldiers, led by competent leaders and armed with modern weapons systems, are the key to decisive victory.

Assessments of the combat performance of Army units are still in progress. What follows are some preliminary findings.

#### CLOSE COMBAT

Armored Units: American armored units decisively overwhelmed their Iraqi adversaries. Tank crews reported that the target acquisition and fire control capabilities of the M1A1 Abrams tank, coupled with its lethality, survivability, mobility, and reliability, resulted in a clear overmatch of even the best Iraqi tanks. Crews noted that the M1A1 thermal sight allowed them to acquire and engage Iraqi T72s from great distances throughout periods of limited visibility and even through the smoke from the oil well fires. They also reported that the M829A1 tank round, that became known as the "Silver Bullet", was extremely effective against the T72 from over a mile away. Successful target engagements were reported from as far as 2.5 miles. The Nuclear, Chemical, and Biological (NBC) overpressure system was also a great morale booster and confidence builder for the crews.

After 100 hours of offensive combat operations, the Abrams' mission-capable rates for both the VII and XVIII Airborne Corps far exceeded the Army's standard of 90 percent. Especially noteworthy was a night move by the 3rd Armored Division that covered 120 miles in which none of the more than 300 tanks in the division broke down. This is a tribute to the conscientious maintenance efforts of the crews and to the reliability of the M1A1 tank.

Mechanized Infantry Units: Units equipped with the M2A2/M3A2 Bradley Fighting Vehicles also decidedly outmatched Iraqi forces. Crews reported that Bradley's infrared sights were very effective, even during sand storms, and that the 25mm Bushmaster cannon was far more lethal than expected. (The 25mm armor piercing round was able to penetrate the T55 and T62 tanks). The TOW II anti-tank system on the Bradley had a 97 percent accuracy rate, and its optics contributed to the Bradley's survivability, permitting engagements from distances beyond the visual range of Iraqi systems. Overall Bradley mission-capable rates remained at 90 percent or above prior to and during combat with no reports of transmission failure during offensive operations.

Combat Engineer Units: The success of initial breaches through enemy fortifications was the result of an integrated, combined arms effort involving accurate intelligence, appropriate tactics and procedures, the best engineer equipment available, and rigorous training and preparations. Intelligence reports provided detailed locations and descriptions of the Iraqi obstacle systems and defensive positions. Combined arms breaching techniques and procedures were refined by the Army's Training and Doctrine Command (TRADOC) and evaluated at both the National Training Center, Fort Irwin, California, and in training areas in Saudi Arabia. Fielding of the Armored Combat Earthmover (ACE), battalion countermine sets, and mine rake attachments for Combat Engineer Vehicles and Abrams tanks provided U.S. forces with capabilities that were essential to the rapid breaching of the Iraqi fortifications. Finally, careful planning and comprehensive and repetitive rehearsals ensured the effective meshing of the force's combined arms capabilities.

#### AVIATION

Attack Aviation Units: Unit commanders and aircraft crews were extremely pleased with the lethality, survivability, and reliability of the AH-64, Apache, helicopter. Throughout the war, the Apache operated successfully and consistently in a variety of weather and visibility conditions. From the start of the Operation DESERT STORM, the Hellfire missile, the Apache's primary armament, proved extremely effective against a variety of moving and stationary targets, e.g. radar sites, bunkers, and tanks. In fact, the 12th Aviation Brigade is credited with destroying 90 percent of the targets its Apaches engaged. The Apache also proved its reliability in combat. Throughout the entire operation, Apache mission-capable rates exceeded 90 percent, far above the Army standard. This is, again, a tribute to the conscientious maintenance efforts of the aircraft crews and their supporting maintenance units, as well as to the reliability of the system. There were only two combat losses in the Apache fleet during the operation; one to hostile fire and the other in an accident.

Aerial Reconnaissance Units: The Kiowa Warrior (OH-58D), with its excellent navigation and optical systems, proved an essential complement to attack aviation units. It was primarily used during the operation to reconnoiter and to laser-designate targets for the Apache. Kiowa Warrior and Apache hunter-killer teams reported as many as 15-20 tank kills per mission. Further demonstrating the system's versatility, two OH-58Ds from the 4th Squadron, 17th Cavalry, operating from the USS Nicholas, were used as part of a task force to destroy Iraqi air defense emplacements on oil platforms in the Persian Gulf. They were also credited with recapturing the first Kuwaiti territory of the war as they accepted the surrender of Iraqi forces on Karuh Island. Overall mission-capable rates for the Kiowa Warrior fleet during the operation were 85 percent. There were three combat losses.

General Support Aviation Units: During the operation, UH-60, Blackhawk, units flew a variety of missions, including troop and artillery movements, medical evacuation, search and rescue, forward area resupply, and command and control. The Blackhawk proved extremely reliable during the operation, accounting for over 6,000 hours flown while maintaining a fleet mission-capable rate average of over 80 percent. Preliminary reports indicate that six aircraft were lost during Operation DESERT STORM; two to hostile fire and four to accidents.

The CH-47, Chinook, units were used extensively to establish refuel and rearm points in support of deep attack operations, to conduct long range rescue missions, and to move large numbers of enemy prisoners of war. One aviation battalion flew 338 missions 120 nautical miles into Iraq in a single night. The fleet maintained a mission-capable rate of over 90 percent. Two CH-47 aircraft were lost to accidents during the operation.

#### FIRE SUPPORT AND AIR DEFENSE

Multiple Launch Rocket System (MLRS): During the war, Army artillery units fired over 17,000 rockets against such high value targets as howitzer and rocket battalions, air defense artillery battalions, command and control facilities, and logistics facilities. The MLRS proved both an extremely effective weapon with which to suppress enemy air defense and artillery units and a very dependable system, maintaining a greater than 90 percent mission-capable rate throughout the operation. Largely due to Army doctrine and tactics — shoot and move — and facilitated by the mobility of the MLRS system, the MLRS was unchallenged by Iraqi artillery systems and encountered no combat losses.

Army Tactical Missile System (ATACMS): The Army initially fielded two batteries of ATACMS during the operation to support critical deep operations and to assist in suppression of enemy air defense units. The system was used primarily against surface-to-air missile sites, logistics sites, SCUD positions, howitzer and

rocket batteries, and tactical bridges. Initial battle damage assessment indicates that ATACMS destroyed, or rendered inoperable, all of its targets. There were no combat losses.

<u>Cannon Artillery:</u> Field Artillery cannon units also played a large role in the success of the ground phase of the campaign. Cannon artillery suppressed Iraqi artillery through counterfire operations, fired preparations in support of maneuver attacks, conducted raids to strike deep into Iraqi territory, and were an integral part of the combat commanders' operational plans. All of the cannon systems — from the 105mm to the 8" howitzers — maintained a mission-capable rate of over 90 percent. Firing over 44,000 rounds in support of Operation DESERT STORM, cannon artillery provided a decisive edge in overwhelming the Iraqi forces.

<u>Copperhead</u>: The Army fired a total of 129 Copperhead laser-guided artillery rounds against various hard targets with devastating effect. XVIII Airborne Corps is credited with target hits from all of the Copperhead rounds that it fired, and VII Corps is credited with hitting all eight targets that it engaged with Copperhead rounds on G-Day.

Patriot, PAC-2, Air Defense System: The now world-famous Patriot successfully intercepted more than 95 percent of the SCUD missiles fired predominantly against Saudi Arabian and Israeli civilians and maintained an average mission-capable rate of over 95 percent throughout the period it was deployed in theater. The success of the Patriot engagements proved to be a militarily effective counter to Iraqi SCUD terrorist attacks on innocent civilians while boosting civilian morale and enhancing coalition cohesion.

#### COMBAT SUPPORT AND COMBAT SERVICE SUPPORT

Heavy Expanded Mobility Tactical Truck (HEMTT) and High Mobility Multipurpose Wheeled Vehicle (HMMWV): The HEMTT, a diesel powered 8X8 truck with cargo, fuel, wrecker, and tractor versions, delivered supplies and materiel when other vehicles could not move — as rain made a quagmire of the desert sand. The light vehicle of choice in the desert was the HMMWV, a diesel powered 4X4 utility truck. The HMMWV proved to be exceptionally durable and versatile while performing command and control, scout, communications, and combat missions. Both vehicle fleets maintained a mission-capable rate of over 85 percent while accumulating hundreds of thousands of miles over a limited road network.

## COMMAND, CONTROL, COMMUNICATIONS, AND INTELLIGENCE (C3I)

Joint Surveillance and Target Attack Radar System (Joint-STARS): Joint-STARS added vital combat capability to the battlefield. Joint-STARS and the Army's Interim Ground Station Modules are developmental systems that were deployed to the theater at the request of the theater commander after its capabilities were demonstrated in an operational test. Its ability to provide effective wide-area surveillance and deep targeting support to coalition air and land force commanders was crucial to the success of the operation. Operating with an average missioncapable rate of more than 80 percent, Joint-STARS never missed a mission in support of the combat commanders. On January 22, Joint-STARS located a division assembly area and a 60-vehicle convoy moving toward Kuwait. The air strike called as a result of the sighting destroyed 58 tanks. On February 24th, the first day of the ground phase of the campaign, Joint-STARS identified Iraqi units moving into positions to block friendly forces of the Northern Area Command. The enemy force was interdicted by tactical air strikes. Additionally, three enemy divisions were detected, attacked, and stopped by fighter and B-52 strikes on February 26th, during a raging storm. This type of real-time intelligence substantially increased the flexibility of the commanders in dealing with the potential threats.

Single Channel Ground and Airborne Radio System (SINCGARS): Reports from units indicate that the system performed very well, experiencing approximately 7,000 hours between failures, compared to the 200-300 hours demonstrated by the older VRC-12 series radios. The 1st Cavalry Division used SINCGARS at retransmission sites and experienced about 30 percent increased range capability. Special Operations Forces employed the radio because of its light weight and integrated communications security (COMSEC) capability.

Small Lightweight Global Positioning System (GPS) Receiver (SLGR): In military operations of any size, the ability to determine locations on the battlefield is essential for navigation, command and control of forces, and for the effective application of combat power. The SLGR enabled soldiers and leaders to pinpoint their locations as they moved through the indistinguishable terrain of the desert. Over 7,500 receivers were absolutely indispensable in conducting the fast-paced, mobile operations that resulted in the allied victory.

The performance of units equipped with our most modern equipment on Operation DESERT STORM clearly validated the investment and research development programs of the past two decades. It further demonstrated that when well-trained, professional soldiers and leaders are provided with the best equipment available, they can rapidly achieve decisive victory while limiting the loss of American lives.

#### 10. LOGISTICS SUPPORT

The success of Operation DESERT STORM is a direct consequence of an extremely successful logistics effort.

#### **ARMY POSITION:**

The daunting challenges facing U.S. logisticians in the early days of August can easily be forgotten in the aftermath of victory. Yet the enormity and the overwhelming success of their efforts will remain one of the great accomplishments in military history.

On the 7th of August, when orders were issued to deploy U.S. forces in support of Saudi Arabia, there were no major U.S. air or ground units in the region, no prepositioned equipment or stocks on the Arabian peninsula, and little logistical infrastructure in-theater to receive, feed, shelter, supply, and transport the coalition armies that would ultimately win in Operation DESERT STORM. With the exception of modern ports and facilities at the designated seaports of debarkation, Ad Damman and Al Jubail, and modern airfields at the designated Aerial Ports of Debarkation, Dhahran, Riyadh, and King Khalid Military City, the logistical infrastructure had to be organized and built from scratch by innovative Army logisticians — while they simultaneously received and supported the incoming forces.

In deploying Army forces from the United States and Europe, the Army was supported by its Military Traffic Management Command (MTMC), the Air Force Military Airlift Command (MAC) and the Navy Military Sealift Command (MSC). Over 99 percent of all personnel deployed to the theater by air, and over 86 percent of all equipment and supplies were moved to the theater by sea.

Utilizing Air Force aircraft and commercial carriers, the Army moved more soldiers over greater distances in a shorter time than ever before in its history. Over 14,000 flights were flown in support of Operation DESERT STORM, carrying more than 473,000 passengers and more than 489,000 tons of cargo. So great was the need for aircraft that the Civil Reserve Air Fleet (CRAF) was activated for the first time in its 40-year history. In addition to the intertheater airlift, Air Force intratheater airlift units, mainly equipped with C-130 aircraft, provided a much needed in-theater resupply capability, carrying critically needed repair parts, food and water, medical supplies, and mail to the troops at forward locations. The Army also used five of its C-23B Sherpa fixed wing aircraft to provide intratheater airlift of critical repair parts.

The deployment of Army equipment and materiel by sea began shortly after deployment orders were issued when four Army prepositioned supply ships, loaded with supplies and equipment, sailed from Diego Garcia in the Indian Ocean. The first of these ships arrived in Saudi Arabia on August 17th. The equipment they provided was essential in the early efforts to support deploying Army and Marine forces. Simultaneously, several Fast Sealift Ships (FSS) and other roll-on/roll-off ships moved to ports in the United States to begin loading Army equipment. The first such ship, the FSS *Capella*, departed Savannah, Georgia, with equipment of the 24th Infantry Division six days after the unit was alerted, and arrived in Saudi Arabia 14 days later. Deployment operations continued over the next six months utilizing more than 20 ports in the United States and Europe. By the end of the operation over 500 ships, carrying over 5.7 million metric tons of cargo, including over 12,000 combat vehicles and over 100,000 support vehicles, had been received and discharged in Saudi Arabia.

When the first elements of the 82nd Airborne Division arrived in Saudi Arabia in early August, there was no logistical structure to support them — no shelter from the 120 degree heat, no facilities to prepare rations, little water available, and very limited sanitation facilities. A handful of Army logisticians had arrived almost simultaneously and were already working on the problems. By the end of August, the basic necessities were in place — shelter, food, water, sanitation and postal service. By the end of October, the reception capability was significantly improved and two logistical bases had been established forward to support the over 100,000 troops of XVIII Airborne Corps, the major Army unit deployed at that time. By the time the VII Corps units began to arrive in December, the logistical infrastructure was in place to receive it.

To accomplish these feats, the Army made extensive use of Host Nation Support, commercial vendors, and the stocks from Army prepositioned ships. Host Nation Support was critical to the success of the operation. In addition to the use of its ports, airfields, warehouses, and materiel handling equipment, the Government of Saudi Arabia provided bulk fuel, food, additional transportation assets, water, troop and equipment shelter, laundry, and latrine and shower facilities. Such support was vital in sustaining the health, welfare, and readiness of our deployed soldiers.

With the decision to prepare for counteroffensive operations, Army logisticians were faced with their greatest challenge — to support a land force of over 300,000 soldiers conducting combat operations over hundreds of miles of trackless desert, one of the most inhospitable environments in the world. This required extremely careful planning and meticulous execution. Stocks of supplies had to be repositioned from the ports and initial logistical bases to forward logistical bases (Map #1) in the vicinity of King Khalid Military City to support the land phase of

the campaign. The move of the combat forces to their attack positions over the restricted Saudi Arabian road network was coordinated, and plans to support the combat operation itself were finalized. Finally, preliminary planning began to support recovery operations in Kuwait and for the redeployment of forces at the conclusion of hostilities.

Three other facets of the logistics operation bear mention. First, adding to their already formidable challenges, Army logisticians were also responsible for providing vital support to the other U.S. services and some coalition forces deployed in Saudi Arabia throughout the operation. They provided inland surface transportation, construction support, rations, fuel distribution, medical supplies, graves registration, barrier materiel, and common munitions.

Second, U.S. industry played a critical role in the success of the logistic efforts. From the outset of the conflict through the reconstitution phase of the campaign, equipment and supplies critical to the war effort were rapidly provided by U.S.-based corporations and the Army Materiel Command (AMC) in the United States. The AMC-Industry partnership proved invaluable. For example, requirements for increased quantities of ammunition, food, uniforms, chemical protective equipment and clothing, and chemical antidotes were quickly met. Industry's ability to surge production for unexpected conflicts must remain a vital part of future logistic planning as the Army shapes a smaller force in a volatile world environment.

Third, as 70 percent of Army logistic units are in the Reserve Components, the success of the Army's logistic effort is a credit to the effectiveness of the Total Force. Over 506 RC logistic units with approximately 51,500 soldiers deployed into the theater or to Europe as replacements for USAREUR deploying units. Additionally, 297 logistics units and 43,000 soldiers remained in the United States to provide key deployment support such as port operations and depot maintenance. Army Reserve and National Guard soldiers provided their much-needed and often unique capabilities with professionalism and dedication.

In the end, it was the herculean efforts of the logisticians of the Total Force that made possible the victory of DESERT STORM. They pumped over 1 billion gallons of fuel, received and processed over 48 million pounds of mail, served over 94 million meals and drove over 35 million miles. Yet, for Army logisticians the end has not yet come as they continue to support redeployment efforts (redeployment is another monumental effort requiring over 400 ships for unit equipment and 200 ships for sustainment stocks) and Operation PROVIDE COMFORT.

#### 11. POST-DESERT STORM OPERATIONS

In keeping with two of the President's stated objectives — restoration of the legitimate Kuwaiti government and reestablishing stability in the region — U.S. armed forces continued operations in the region following the cessation of hostilities.

#### ARMY POSITION:

Even as Army forces are redeploying from Saudi Arabia, returning their equipment to pre-war levels of readiness, and replenishing their supplies and war reserve stocks, U.S. soldiers are assisting in the restoration of Kuwait and providing humanitarian relief and protection to Iraqi refugees.

TASK FORCE FREEDOM, consisting of civil affairs, engineer, logistic, explosive ordnance disposal, military police, medical, psychological operations, and signal units, began emergency recovery operations in Kuwait on March 1, 1991, to meet the critical immediate requirements of both the people and government of Kuwait. Charged with assisting Kuwait in such areas as explosive ordnance disposal, public safety, medical treatment, food and water distribution, sanitation, restoration of telephone and radio/television service, currency conversion, and reopening of the banking and public school systems, TASK FORCE FREEDOM provided invaluable assistance in restoring the Kuwaiti infrastructure and returning a degree of normalcy to the country. Additionally, Army engineers, through the Kuwaiti Emergency Recovery Office (KERO), provided damage assessments and assisted in repair of aviation and port facilities, the commercial electrical system, public buildings, roads, and water and sewage systems.

On April 30th, the Defense Reconstruction Assistance Office (DRAO) assumed operational control of Army units from TASK FORCE FREEDOM for longer term reconstruction efforts. Army forces continue to provide support in the areas of civil affairs, logistics, and facilities repair and construction.

In late May, the 11th Armored Cavalry Regiment was alerted to deploy from its home bases in Germany to Kuwait with the mission of assisting U.N. peacekeeping forces in the defense of Kuwait. The unit is scheduled to begin operations in Kuwait in mid-June.

Further north, U.S. and coalition forces are currently engaged in one of the greatest humanitarian relief efforts in recent times. Operation PROVIDE COMFORT is a joint and combined effort to relocate and provide humanitarian assistance to the displaced Kurdish population of Iraq who fled their homes following an unsuccessful attempt by Kurdish rebels to overthrow the Iraqi government. The

Deputy Secretary of Defense designated the Commander-in-Chief of U.S. Forces in Europe (USCINCEUR) as the Executive Agent for Operation PROVIDE COMFORT on April 7th and directed him to deploy forces and provide supplies to facilitate humanitarian relief efforts and to support refugee operations. The USCINCEUR immediately established a Joint Task Force to control the operation.

Operation PROVIDE COMFORT is a three phased effort. The first phase, immediate relief, provided air and ground delivery of relief supplies to refugees separated from established humanitarian support locations. The second phase, Combined Task Force (CTF) buildup, is an organized, sustained effort to provide long-term humanitarian assistance to displaced citizens in Turkey and northern Iraq by assisting in the construction, administration, and security of refugee communities. The final phase is the retrograde of all support personnel after mission completion.

OPERATION PROVIDE COMFORT has been an international effort from the outset. Australia, New Zealand, Italy, Denmark, Luxembourg, Japan, Spain, Belgium, France, the United Kingdom, and Germany have all assisted in airlifting relief supplies. Initially, all relief efforts were accomplished by airdrop into numerous drop zones because of the inaccessibility to the refugees. This quickly shifted to helicopter sling load and truck line-haul as the situation permitted. Although food and water were the most critical items, clothing, blankets, and tents were needed as well. During the first week in May, resupply efforts shifted to tailored relief packages to better meet the needs of each site.

During the two months of the operation, the U.S. and its coalition partners shipped over 16,700 tons of supplies to the refugees. Relief supplies included Meals Ready-to-Eat, bulk food, water, blankets, clothing, sleeping bags, and tents. Combined troop strength, including coalition personnel, reached over 21,000, including more than 6,000 U.S. Army soldiers.

During the course of the operation temporary camps were established in Turkey, Iraq, and on the Turkey-Iraq border. At the height of operations, it is estimated that over 450,000 refugees were processed through the camps enroute to their homes.

#### 12. OBSERVATIONS

The Army is in the midst of a rigorous process to capture, analyze, and, where appropriate, to imbed the lessons of Operation DESERT STORM into its present and future doctrine, training, organizations, equipment, and leader development programs.

#### **ARMY POSITION:**

The Army has an extensive analytical process under way, led by the Center for Army Lessons Learned (CALL) at Fort Leavenworth, Kansas, to assess the lessons of Operation DESERT STORM. This process will take several months to complete. An initial report should be available by the fall of 1991. Some general initial observations are apparent:

•<u>Trained and ready forces are essential</u>. Army forces have been committed to major combat operations twice within the last 18 months. Both operations were rapidly and successfully concluded with relatively few American and civilian casualties. These results are only possible with forces that are maintained at high levels of combat readiness in peacetime. In the turbulent decade ahead, with little or no warning of impending crises likely, it is imperative that the readiness of Army forces be maintained.

•The Army's six imperatives were revalidated. The Army of Operation DESERT STORM was built over the past decades on uncompromising adherence to six fundamental imperatives. Quality, volunteer soldiers manned technologically superior weapons systems; they were guided by an effective warfighting doctrine — AirLand Battle doctrine; they were trained to a razor's edge; they served in an effective mix of armored, light and special operations units in both the Active and Reserve Components; and they were led by competent, confident leaders. These imperatives, fundamental to the success of the operation, will continue to guide the Army of the future.

•The Total Force was tested and validated. The victory of Operation DESERT STORM was a victory of the Total Force. The 140,000 Army Guardsmen and Reservists mobilized for the operation were indispensable to its success. Mobilization on this scale had not been accomplished since World War II. As such, the call-up enabled the Army to evaluate elements of the Total Force Policy heretofore untested, such as the roundout concept. As the active force is reduced over the next four years to its smallest size since 1939, the experience gained in the course of Operation DESERT STORM will greatly assist the Army in formulating future planning assumptions and policies to ensure the United States has the required land forces available when they are needed.

- •Effective joint and combined operations are the keys to successful military operations. Operation DESERT STORM was an integrated air-land-sea campaign controlled by a single commander. It was a clear demonstration of the complementary nature of U.S. forces and their overwhelming effectiveness when employed in a synchronized fashion to take advantage of their unique capabilities. The Army will continue to refine its capabilities to operate with its allies and sister services.
- •The deployability of Army forces must be improved. Although the deployment of U.S. forces in the operation was ultimately successful, it served to identify several weaknesses in U.S. rapid deployment capabilities. Surge requirements for airlift and in-country reception capabilities significantly stressed the ability of the Military Airlift Command to move the initial force quickly enough and to link up soldiers with equipment that deployed by sea. Further, delays and maintenance difficulties hampered the activation of a number of ships of the Ready Reserve Force. As the U.S. moves to implement a national military strategy based on the projection of power from the United States and forward bases, these deficiencies must be addressed. Continued emphasis on improving the worldwide mobility triad airlift, sealift, and prepositioning is necessary to ensure the United States can credibly project power.
- •Developing countries can fight high-intensity wars. The new national military strategy requires projection of power from the United States or forward bases to respond to crises and other immediate requirements worldwide. The potential requirement for the United States to fight large, well-equipped armies in regions of the world without the logistical infrastructure to support the reception and sustainment of the armored forces necessary for victory was aptly demonstrated in Operation DESERT STORM. The Army must continue to improve its ability to fight in such environments through both focused modernization efforts and the development of Host Nation Support arrangements in areas of likely conflict.
- •<u>Technology</u>, in the hands of well-trained and well-led soldiers, provides a decisive edge in modern combat. Continuous modernization will be essential to ensure the lethality of the smaller Army of the future.
- •The quality of the force is the foundation of victory. Quality is the defining characteristic of a trained and ready Army. The outstanding performance of the men and women of the Total Force under extremely trying conditions during Operation DESERT STORM clearly demonstrated the importance of quality. Maintaining the quality of the force will continue to be the overarching requirement for the Army in the future.

# **QUALITY**

Quality is the defining characteristic of a trained and ready Army. While the keys to a quality force are attracting and retaining America's best young men and women, quality also requires excellence in facilities and services, in training and equipment, and in leadership at all levels. In short, a quality force demands an environment in which every soldier, civilian, and family can reach the highest levels of personal and professional growth.

The importance of quality was clearly demonstrated in combat in Operation JUST CAUSE and, more recently, in Operation DESERT STORM. Our soldiers and leaders performed exceptionally well under extremely adverse conditions. These operations validated the importance of quality soldiers in force projection operations, where versatility and adaptability to foreign and hostile surroundings are essential to accomplishing assigned missions quickly. They were also dramatic demonstrations of the capabilities of a professional, trained and ready force, and they confirm the absolute necessity for quality soldiers and civilians in today's Army.

The competence and flexibility of quality soldiers and civilians will also be important in shaping the Army for the future. The challenges of the international environment, the complexity of new technologies, and the diverse missions that will be assigned Army forces will require intelligent and dedicated men and women able to adapt quickly to the mission at hand. Demands placed on soldiers and civilians will surely increase as the Army strives to maintain a full range of capabilities during the transition to a smaller, capable Total Force.

Consequently, maintaining the quality of the force is the overarching requirement for the Army today and for the future. The Army will maintain high standards for those who will enter the Army as well as for those who wish to remain for a career. In addition, the Army is committed to taking care of its soldiers, civilians, and their families during the transition to a smaller force by improving essential quality of life programs, maintaining a steady flow of promotion and schooling opportunities, and providing adequate career opportunities.

#### 13. PERSONNEL REDUCTIONS

The Army is committed to reducing the size of the Total Force through a program of reduced accessions and voluntary and involuntary separations. This process is designed to maintain the appropriate composition of the force and to minimize the negative impacts on readiness and hardships on soldiers and their families.

#### **ARMY POSITION:**

The end of the Cold War has permitted a fundamental realignment in U.S. national military strategy. The new strategy calls for increased emphasis on power projection with substantially reduced forward-deployed forces. The Army will, therefore, substantially reduce the size of the Total Force. A smaller, high quality, trained and ready Total Force can meet strategic requirements for land forces without unacceptable risks to U.S. security. The alternative — larger forces at lower levels of quality and readiness — is unacceptable. Such forces would be unable to satisfy future U.S. needs for land force capabilities, particularly in power projection.

The Army plans to reduce the size of the force by over 400,000 Active, Guard and Reserve soldiers by the end of Fiscal Year 1995. The Active Army will build down from its 1991 peak of approximately 745,000 (already substantially below the 781,000 level of the Army during the 1980s) to 535,000, while the Army National Guard will be reduced from its current level of 457,000 to 321,000 and the Army Reserve from 319,000 to 230,000.

The Army has developed a systematic plan to provide for an orderly and deliberate transition to a smaller, capable Total Force. It is designed to maintain the readiness of the force by minimizing the inherent turbulence associated with such a substantial build down. It will also honor the Army's obligations to minimize the hardship of transition for those volunteer soldiers and their families who will be asked to leave the service. The manner in which the Army handles these difficult transitions will be critical to the quality of the future force because a soldier's experience in the service has a direct impact on recruiting and retention.

In general, accessions will be reduced to levels required to sustain the end state force, retirements will be increased, and voluntary loss programs will be emphasized. However, involuntary losses — Reduction in Force (RIF) and Selective Early Retirement Board (SERB) — actions will be needed to meet the end strength targets and to properly shape the force. The Army is currently examining other options to reduce the requirement for large, involuntary reductions in the career force with the Department of Defense.

#### 14. THE ARMY CAREER AND ALUMNI PROGRAM

The Army's ability to recruit and retain a quality force in the future will depend, in large measure, on how effectively the Army cares for the members of the Army family affected by the transition to a smaller force.

#### ARMY POSITION:

The Army Career and Alumni Program (ACAP) was created last year to provide caring, organized and disciplined transition services to all members of the Army family — active, reserve, civilian, and family members — as the Army builds down in the years ahead. This program, along with the benefits provided by law for involuntarily separated soldiers, are important components of the Army's transition assistance effort.

Designed to integrate federal and local efforts, ACAP is structured to provide a comprehensive system of services to assist departing personnel. The Transition Assistance Office (TAO), the soldier's first stop in the transition process, will integrate services offered by other government agencies and will provide the soldier with a comprehensive transition plan. It will also refer each individual to the appropriate agency for information on benefits available to them. The Job Assistance Center (JAC), another element of ACAP, will provide job search skills, individual career counseling, workshops and seminars, access to national employers, assistance in resumé preparation, and referral to external job assistance agencies. ACAP is being structured to provide support to an estimated 180,000 to 220,000 personnel annually.

In addition to ACAP services provided the soldier, Congress provided a package of benefits in the National Defense Authorization Act for Fiscal Year 1991 that will greatly ease the burden on soldiers involuntarily separated from the service. These benefits are afforded to soldiers separated under honorable conditions. Some of the additional benefits include: separation pay for officers and enlisted members; excess leave up to 30 days for job search and relocation activities; priority placement with National Guard and Reserve units; extension in military housing up to 180 days; commissary and exchange privileges for two years; military health care for 60-120 days after separation, depending on years of service; an opportunity to participate in G.I. Bill educational benefits for those who did not sign up upon enlistment; and extension in Department of Defense Dependent Schools (DODDS) for the final year of high school.

#### 15. RECRUITING AND RETENTION

Attracting and retaining America's best young men and women will remain an indispensable element of maintaining a quality Total Force.

#### **ARMY POSITION:**

The importance of quality soldiers and leaders was clearly demonstrated in Operations JUST CAUSE and DESERT STORM. Continuing to attract such quality personnel and to retain them in the service as the Army builds down in an era of declining resources will remain a constant challenge. Meeting this challenge will not only demand adequate resources for advertising, enlistment and reenlistment programs, and compensation, but the ability to provide soldiers with challenging training opportunities and a quality of life comparable to that of American society.

The Army requires sufficient resources to continue a first—rate advertising program to maintain awareness of Army recruiting initiatives and of the Army as a challenging and rewarding profession and to sustain sound educational and bonus incentives. Education incentives remain the Army's most powerful recruiting tool. In a recent survey, over 40 percent of a sample of enlistees said they either would not have enlisted or would have chosen another service if there were no Army College Fund. The Army College Fund, the Montgomery GI Bill, and enlistment bonuses for qualified applicants are integral components of a structured Army recruiting offer.

Retaining quality soldiers, particularly those in their first term, will also be critical for the Army to field competent, confident leaders in the future. As the Army builds down to a substantially smaller force, it will focus on the selective retention of only top performers. Reenlistment bonuses and incentives will remain essential to encourage the best quality soldiers to remain in the Army.

Of equal importance is the need to retain the skills and experience of soldiers leaving the active force by having them affiliate with Reserve Component units as they leave the active Army. The Army's goal is to place about one—third of the eligible specialists, corporals, and sergeants into Reserve Component units.

#### 16. THE CIVILIAN WORK FORCE

Army civilians are an integral part of the Total Force. The Army is committed to maintaining a trained and ready civilian work force as it builds down and reshapes for the future.

#### ARMY POSITION:

The success of today's Army can be attributed, in no small measure, to the contributions of its dedicated civilian work force. Nearly one-fourth of the Army consists of highly qualified Department of the Army civilians, whose efforts contribute daily to the accomplishment of Army missions and functions around the world. As demonstrated in Operation DESERT STORM, where Army civilians contributed immeasurably to the successful logistic effort from positions in the sustainment base in the United States all the way to the forward foxholes, the Army civilian is a critical component of today's trained and ready Army.

The planned build down of the Army to a smaller, capable Total Force will directly affect the number of civilians the Army employs. By the end of Fiscal Year 1995, the Army will reduce its civilian strength by 77,000 personnel, approximately 20 percent of the current work force, as a result of force structure reductions, implementation of the Defense and Army Management reviews, and base closures and realignments. A number of these reductions have already been realized with the implementation of the Department of Defense-wide hiring freeze that began in January 1990. Even with the exceptions granted for Operation DESERT STORM, the Army has reduced its civilian end strength by more than 32,000 as a result of this freeze. Further reductions will be accomplished through the streamlining of current functions, managed spending, prudent release of temporary employees, a continuation of the hiring freeze, a voluntary early retirement policy, furloughs, and judiciously managed reductions in force.

The Army is committed to maintaining the quality of the civilian work force throughout the build down by continuing to recruit quality individuals and by maintaining a steady flow of promotion and development opportunities and challenging job assignments. Further, all reduction actions, and particularly required reductions in force, will be handled with care and concern for each affected employee. Systems are already in place or in development to assist in their transition to other jobs. For example, the Army Career and Alumni Program (ACAP) will also assist civilians in their transition from the Army by providing transition counselling and job search assistance.

#### 17. ARMY COMMUNITIES OF EXCELLENCE

There is an important link between quality Army communities and the maintenance of a trained and ready force.

#### ARMY POSITION:

Army Communities of Excellence (ACOE) is an umbrella program that seeks to enhance community facilities and services to provide members of the Army family a quality environment in which to work and live. It has resulted in improved quality of life for soldiers and their families, improved recruiting and retention, increased performance and productivity, and increased combat readiness.

By fostering overall community excellence, ACOE makes a direct contribution to Army readiness far beyond the resources the program expends. ACOE works because it taps the boundless reservoir of energy, enthusiasm, and ingenuity of all community members. Moreover, ACOE fosters pride in the profession and the community that sustains each soldier, civilian, and family member in demanding times.

Looking back at the largest mobilization and deployment of Army forces in decades, the value of ACOE was unambiguously demonstrated. Army communities provided top-quality services for the families left behind, and soldiers deployed with confidence that their families were being cared for and their families' needs met. Moreover, Army communities welcomed and assisted the families of mobilized soldiers from the Reserve Components. Operation DESERT STORM clearly demonstrated the pivotal role that Army communities play in maintaining readiness.

As the Army builds down the force with the accompanying base closures and realignments, maintaining the quality of life at Army installations will be increasingly challenging. Yet the Army cannot allow its facilities to erode or fail to provide its soldiers, civilians, and families with courteous, responsive services. Sustaining a viable quality of life will remain critical both for recruiting and retention and for the maintenance of readiness across the force. In such an environment, the ACOE program will assume greater significance, making an effective and inexpensive contribution to promoting and sustaining a quality, ready force.

#### 18. THE ENVIRONMENT

With over 24 million acres of land located on over 2,000 installations, the Army is committed to properly discharging its responsibilities for preserving and protecting the land, water, and other natural resources entrusted to its care.

#### **ARMY POSITION:**

The Army is committed to setting the standard for the Department of Defense and other Federal agencies as the leader in compliance with environmental law, prevention of environmental damage, and the protection and stewardship of natural resources. In doing so, the Army is making a concerted effort to integrate environmental considerations into all Army activities from training to industrial operations, and the Army is improving its management practices to preserve and enhance the natural and historical resources on its installations.

Full compliance with applicable environmental laws and regulations is a necessary cost of doing business. The Army established the Environmental Compliance Achievement Program (ECAP) to provide a comprehensive strategy for identifying environmental requirements and for allocating the resources to meet them. The Fiscal Year 1992 ECAP program is currently budgeted at \$500 million.

Additionally, the Army is also extensively involved in cleaning up the damage from past disposal practices. The Installation Restoration Program was developed to complete these clean-up efforts quickly and economically. This includes an aggressive schedule to complete remedial action at all Army active and formerly used defense sites. The Army, with 32 installations and 36 sites on the National Priorities List, is currently expending \$287 million for clean-up activities at currently owned sites and \$87 million for the clean-up of formerly used defense sites.

The Army's greatest challenge is moving beyond compliance to prevention of environmental damage. The Department of Defense and Army goal is to reduce hazardous waste generation by 50 percent by the end of Fiscal Year 1992. The Army is well on its way to achieving this goal. Future reductions will be achieved by modifying system acquisition specifications to reduce future disposal requirements, improving the processes for identifying and tracking hazardous material, and by fielding the latest environmental equipment as rapidly as possible.

## **DOCTRINE**

Doctrine guides the Army in the execution of its strategic roles. It establishes the principles for the conduct of military operations during peace, conflict and war and furnishes the authoritative basis for subordinate doctrine, force design, materiel design and acquisition, professional education, and individual and unit training. As such, the Army's doctrine must be dynamic — evolving to ensure that the Army's combat methods can succeed on future battlefields and that they take full advantage of the quality of American soldiers and advancements in technology.

The efficacy of the Army's doctrine was clearly demonstrated in Operations JUST CAUSE and DESERT STORM. The Army's current doctrine, AirLand Battle, originated in 1981. It guided a decade of modernization, training, leader development, organizational changes, and subordinate tactics, techniques and procedures that prepared the Army well for the rigors of modern combat. Further, its early recognition of the inherent joint and combined nature of warfare and emphasis on the planning and conduct of campaigns stimulated a renaissance in the Army's thinking about war.

As doctrine will continue to guide the Army's efforts to develop and field combat-ready forces and to participate in the development of joint doctrine, the Army will sustain its current momentum in dealing with the security challenges of the future by maintaining a forward-looking warfighting doctrine. The Army's doctrine will continue to evolve to guide its disciplined transition to the future.

#### 19. ARMY DOCTRINE

Over the past decade, AirLand Battle, the Army's contemporary warfighting doctrine, provided the foundation for the disciplined transition to today's trained and ready force. It will evolve over the next several years to guide the Army's preparations for tomorrow's battlefields.

#### ARMY POSITION:

The principles of AirLand Battle (ALB), named in recognition of the inherent joint and combined nature of modern warfare, form the basis for planning and conducting military operations and campaigns in conjunction with the other services and coalition partners. They serve as the foundation for the development of subordinate doctrine and tactics, force designs, materiel, training, and leader development and professional education. They are applicable in all theaters of operation and warfighting environments and to all levels of military operations.

The tenets of this doctrine — initiative, agility, synchronization, and depth — guide simultaneous operations over the full breadth and depth of the battlefield including close operations to destroy enemy forces at the point of contact; deep operations to monitor and destroy, delay, or disrupt enemy forces that could influence close operations in the future; and rear operations to retain freedom of action for sustainment of committed forces and the movement of reserves. Operation DESERT STORM was an effective demonstration of the successful application of the principles of AirLand Battle by forces trained and equipped to maximize its warfighting potential.

The Army's doctrine will continuously evolve to ensure its disciplined evolution for the future. The AirLand Battle-Future (ALB-F) doctrine development initiative is designed to lead this process by looking out over the next fifteen years, examining elements of continuity and change, and providing a forward-looking focus to begin shaping the Army for the 21st century. It is envisioned that this process will lead, in the near future, to the publication of a TRADOC pamphlet that will describe how Army forces will operate as the land component of military power in joint and combined operations in the future. This will, in turn, lead to the update of Field Manual 100-5, *Operations*, the Army's keystone doctrinal manual, over the next several years.

48 Doctrine

## 20. JOINT DOCTRINE

In concert with the Joint Staff, CINCs, and the other services, the Army will continue its efforts to develop effective joint doctrine to guide future military planning and operations.

#### **ARMY POSITION:**

As joint operations are the norm in modern warfare, the effective integration of forces from the various services is essential for success in combat. Consequently, over the past few years, the services, the CINCs, and the Joint Staff, have expended considerable effort in the development of joint doctrine. This joint doctrine development process is intended to produce a body of common language, principles, techniques, and procedures that will facilitate the integration of the U.S. armed forces in the planning and conduct of operations in peace and war.

Charged with developing 16 major joint publications, ranging from joint operations to health support, the Army has been an active participant in developing joint doctrine. The U.S. Army Training and Doctrine Command (TRADOC) is the Army's doctrine proponent, and, with input from the Army major commands, it develops the Army's contributions to the joint doctrine process. It has recently completed and disseminated drafts of Joint Publication 3-0, Doctrine for Unified and Joint Operations, and Joint Publication 3-07, Doctrine for Joint Operations in Low-Intensity Conflict, which are currently undergoing evaluation. Two other important joint doctrine projects under development are the publications on Campaign Planning and Contingency Operations. These documents will establish the principles for the planning and employment of forces in theaters of operation. The Army is also the lead service in the areas of fire support, rear area operations, chemical operations, antiterrorism, foreign internal defense, and peacekeeping. Initial draft publications in these areas will be disseminated in the future.

Operations JUST CAUSE and DESERT STORM provided unique opportunities to evaluate many aspects of joint doctrine under combat conditions. There is an extensive effort underway throughout the armed forces to derive lessons that have implications for the joint doctrine process.

Doctrine 49

## FORCE STRUCTURE

The Army's force structure consists of armored, light, and special operations units; their supporting elements; and sustaining base activities. The Army makes decisions on the size, composition, and appropriate mix of these forces based on assessments of current and potential threats to the United States and the capabilities required to accomplish its strategic roles in support of national security strategy. These assessments are always tempered by considerations of affordability and risk.

The end of the Cold War has permitted a fundamental realignment in U.S. national military strategy. The new strategy calls for increased emphasis on power projection and a reduced requirement for forward-deployed forces. With fewer units forward-deployed, the United States must be capable of rapidly moving well-equipped, trained and ready units to crisis locations worldwide. Additionally, because of the increased time available to detect and counter a resurgent Soviet threat or other comparable major threat, the new strategy is also predicated on the ability of the United States to reconstitute additional defense capabilities should the need arise. These changes in strategy have had significant implications for the ways in which the Army structures its forces.

As a result, the Army of the future will look substantially different than today's Army. First, with the reduced requirement for forces designed to counter the Soviet Union in Europe and elsewhere around the world and with more time available to reconstitute the force in response to a resurgent Soviet threat, the Army will substantially reduce the size of the Total Force and consider innovative methods, such as cadre divisions, for reconstituting forces. Second, the future Army will be largely CONUS-based. Forward presence will be maintained with reduced forward deployments supplemented by periodic deployments from the United States and forward bases. Third, the readiness requirements for rapid deployment have caused the Army to focus on maintaining sufficient forces in the Active Component to satisfy short-notice peacetime contingencies, crisis response, and most forward presence requirements. The Army will continue to rely extensively on the Reserve Components for combat reinforcing forces and combat support and combat service support augmentation following alert, mobilization, and completion of essential training and preparations for the particular contingency.

The Army has carefully crafted its force structure to provide the United States with the land force capabilities it will require through the turbulent decade ahead. It will be imperative to maintain the quality and readiness of this smaller Total Force both during the reshaping of the force and in the future.

#### 21. THE TOTAL ARMY OF 1995

The Army of 1995 will be a perilously small land force for a nation with the United States' worldwide responsibilities. It will be essential to minimize the security risks inherent in the smaller Total Force by maintaining its quality and readiness.

#### **ARMY POSITION:**

The Army has designed the Army of 1995 to meet the requirements of U.S. national military strategy. Its structure is carefully tailored within manpower and fiscal constraints to optimize the Army's warfighting capabilities for the projected international environment. It will be a smaller, more CONUS-based force, focused on achieving U.S. national objectives through forward presence backed by the projection of power from the United States and forward bases and by the ability to reconstitute additional defense capabilities when they are required.

The Army of 1995 will be a 4-corps, 20-division force. It will consist of 12 active divisions (7 armored, 4 light, and 1 infantry), 6 Army National Guard (ARNG) divisions (5 armored and 1 light), 2 cadre divisions (armored), and the requisite support forces. When reductions to these levels are completed, the United States will be at the limits of acceptable security risk with regard to its land forces, even with the continued nonconfrontational posture of the Soviet Union.

In the future, the ability to deter aggression and to effectively prosecute major conflicts will depend on the ability to generate combat-ready forces when they are required. The Army has, therefore, adjusted its method of force generation to meet the demands of fulfilling its strategic roles with the smaller force. In this construct, because of the readiness requirements for rapid deployment, most forward presence and rapid deployment missions will be accomplished by active forces. The Army will maintain 4 active divisions — 2 in Europe and 2 in the Pacific — forward deployed, and 5 active divisions — 1 airborne, 1 air assault, 1 light, and two armored — and special operations forces for rapid deployment. Forward-deployed forces will also be available for contingency operations or to reinforce forces committed elsewhere.

The Army also will maintain reinforcing forces in the United States capable of deploying after Reserve Component call-up, varying degrees of post-mobilization training, and preparation for the particular contingency. These forces will consist of 3 active divisions rounded out by National Guard brigades and 6 National Guard divisions. Two cadre divisions, designed to bridge the gap between the call-up of the National Guard divisions and total mobilization, will complete the 20-division Total Army of 1995.

53

#### 22. REDUCING THE TOTAL FORCE

Army force structure decisions are completely linked and fully integrated. The Army has structured its reduction plans to shape a smaller, capable Total Force for the future.

#### ARMY POSITION:

Over the past decade the Total Army has undergone a substantial transformation because of the requirement to confront massed Soviet armored forces in Central Europe. The entire Army has benefitted from the influx of better equipment, better training, and higher quality soldiers and leaders. In addition, the Army's Reserve Components (RC) grew in size by almost 200,000 soldiers during this period, while the size of the active Army slightly declined.

With the end of the Cold War, there is a reduced requirement for forces assigned to counter the Soviet Union in Europe and elsewhere. With a reduced need for NATO forward deployed and reinforcing divisions and for the combat support and combat service support units required to support those divisions, the Army will be able to reduce the size of the Total Force from its current size of 28 divisions (18 active and 10 ARNG) to 20 divisions (12 active, 6 ARNG, and 2 cadre).

These significant reductions affect the Total Force because the Army, more so than the other services, relies extensively on its RC for reinforcing forces and for augmentation of its combat support and combat service support forces. In fact, half of the Army's combat and combat support soldiers and two-thirds of its combat service support soldiers serve in the ARNG and Army Reserve.

In assigning the reductions among the components, the Army carefully weighed assessments of potential threats, the capabilities required to meet them, and considerations of affordability and risk against the requirements of the national military strategy. Missions were allocated based on a unit's ability to meet essential levels of warfighting capability in peacetime and on the likely length of time needed to mobilize, train and equip a unit prior to its deployment. With a smaller force, the Army clearly cannot afford forces that it does not need or that cannot be ready when they are required. For example, in some cases, the benefits of potential savings realized by assigning a particular mission to the RC are far outweighed by the risks (e.g., units that cannot be ready when they are needed, committing unready soldiers to combat). In those cases, the mission is assigned to the active component. In other cases, particularly when the skills required in the unit are readily transferrable to civilian job skills or the unit is not required immediately, the mission is assigned to the RC.

Force Structure

#### 23. REDUCTIONS IN FORWARD-BASED FORCES

The Army plans to reduce its forward-based forces where the situation warrants. It will retain sufficient forces overseas to sustain U.S. alliance commitments and to contribute to regional stability.

#### ARMY POSITION:

In the current international environment, there is a diminishing requirement to maintain large numbers of Army forces permanently based abroad for immediate use to counter short-notice attacks by Soviet or other potential adversaries in vital regions. The United States must, however, continue to maintain capable and credible forces forward-deployed in Europe, Asia, and other areas of vital strategic interest, although at lower levels than in the past. Yet, the forward presence of Army forces will remain essential to accomplishing U.S. national objectives worldwide, and the Army will maintain forward presence through periodic deployments of Army units and soldiers from the United States and from forward bases. These forces will be capable of participating in joint and combined exercises, conducting training of host nation soldiers, participating in nation assistance, providing support to counternarcotics efforts, and providing disaster relief and other assistance as required.

The build down of forward-based forces will be accomplished within the context of Army plans for reshaping the Total Force. The majority of the force structure reductions in Fiscal Years 1992 and 1993 will come from Europe as the Army will reduce its European-based forces by over 50 percent in the next several years.

The Army's plan for European force reductions entails a reorganization of units in the theater — keeping selected elements of the current two corps but reorganizing them into one corps with two divisions, an armored cavalry regiment, and requisite supporting forces. The plan is designed to provide sufficient forces to meet NATO requirements and to permit a contingency response capability for the corps as was demonstrated in Operation DESERT STORM. It is also designed to retain the best installations and training areas, reduce costs, and leverage the investments of the past decade.

Although Army forces in the Pacific are substantially smaller than those based in Europe, they will also be reduced in the future as the Army builds down. Force reductions in Korea will continue over the next several years with the withdrawal of approximately 5,000 soldiers. Reductions will be accomplished in concert with the President's Report to Congress "A Strategic Framework for the Asian Pacific Rim — Looking Toward the 21st Century."

54 Force Structure

#### 24. BASING STRATEGY

As the Army force structure becomes smaller, so must its installation structure. The Army has developed a basing strategy to maintain the quality and readiness of the Total Force.

#### **ARMY POSITION:**

The Army stations forces to support the national military strategy. The national military strategy drives the size and composition of the Army, which, in turn, dictates the number, sizes, and types of installations the Army must maintain. Changes in the national military strategy will lead to the smaller, more CONUS-based Army discussed in the previous chapter. As reductions in the size of the force are made, the Army will reduce its basing structure as well.

The Army's base closure and realignment process to date can be thought of as four distinct rounds or stages. Each round builds upon its predecessor in a clear, coherent manner with the intent of molding an optimal base structure that best supports the future Total Force. In 1988, the decisions in Base Realignment and Closure (BRAC) I, mandated under Public Law 100-526, envisioned an Army end strength in the mid-1990s of 781,000. The next round, BRAC II, envisioned this end strength to be 630,000 and reflects the Army's initial transition to a smaller force. The third initiative, BRAC III, calls for the turnover of 140 installations and sites overseas to host-nation governments and reflects the Army's transition to a more CONUS-based force. BRAC 91, the fourth round, will guide all future CONUS base closures and realignments. The closures and realignments recommended by the Army under this initiative reflect a further transition to a projected Army Active Component end strength in the mid-1990s of 535,000.

The Army is aware of the inherent hardships which accompany base realignments and closures, not only for the soldiers, civilians, and their families, but also for the surrounding communities. The Army will continue to be sensitive to their needs.

#### 25. CADRE DIVISIONS

With smaller forces, the United States must rely increasingly on a well-developed capacity to reconstitute the additional forces necessary to confront the Soviet Union and other potential major adversaries should the need arise.

#### ARMY POSITION:

With the end of the Cold War, the increasing time available to detect and counter a resurgent Soviet threat permits the United States to rely for that eventuality on the capability to reconstitute the required additional forces. While the concept of reconstitution is not new, its significance will increase substantially as the size of the armed forces decreases over the next several years. In the future, the United States' ability to deter and to effectively prosecute major conflicts will depend on the ability to reconstitute additional forces when they are required.

Reconstituting new units under total mobilization relies on equipment stockpiled or produced and on soldiers drafted and trained after mobilization. Current estimates indicate that it would take two or more years before the first wholly new units could be formed, equipped, trained, and deployed. A need clearly exists for a reconstitution capability that can provide additional forces earlier and that will be less expensive to maintain than fully-structured active or Army National Guard divisions.

Cadre divisions provide such a capability. The concept involves maintaining partially manned and equipped divisional forces in peacetime that are filled and trained in the event of war. In peacetime a cadre division could consist of a skeleton divisional organization of around 3000 trained officers and noncommissioned officers (vice over 10,000 in a full division). On mobilization the division would be filled with an influx of soldiers, equipped, trained by the leadership cadre, and deployed. Current estimates indicate that an armored cadre division could be available in 12-15 months after mobilization, significantly before a division built from scratch.

In April 1990, the Army began studying the strategic requirements for cadre divisions and the feasibility of incorporating them into the Total Force. Cadre divisions were seen as an option to leverage the Army's investment in equipment and trained leaders to improve the expansibility of the smaller force. The concept was evaluated and found to be feasible. Full development of the concept in a Force Development Concept Analysis has begun by the Army's Training and Doctrine Command. The Army expects to have sufficient basis for implementation decisions prior to submission of the 1994-1999 Defense Plan.

56 Force Structure

## TRAINING

Training is the cornerstone of readiness. As such, the Army is firmly committed to continuing tough, demanding and realistic training for the entire force. Training will remain the Army's top priority.

The continued emphasis and investment that the Army placed on training in the past paid great dividends in Operation DESERT STORM. The value of a trained and ready force was clearly demonstrated in the rapid, overwhelming victory of coalition forces. The Army will strive not only to maintain current levels of training readiness but also for continuous improvement in its Active and Reserve Component training programs by exploring new and innovative ideas to further enhance training. Improvements in Reserve Component training programs through the application of technology and resources to their unique training challenges will be particularly important for the future.

As the Army builds down to a smaller force, it will be essential to maintain the focus on training. A smaller force must be well-trained and capable of executing AirLand Battle doctrine in integrated combined arms teams if the Army is to accomplish its strategic roles with a smaller force. This integration is accomplished through a well developed and supported training program.

The Army's training programs are guided by the doctrine, philosophy, and principles that are clearly articulated in FM 25-100, *Training the Force*, and FM 25-101, *Battle-Focused Training*. Tough, demanding, and realistic conditions; high standards; and a focus on each unit's peacetime and wartime missions will continue to characterize the Army's training programs.

#### 26. COMBAT TRAINING CENTERS

The Combat Training Center (CTC) program has made a greater contribution to improving and sustaining the professionalism and warfighting capability of the Total Army than any other single training program.

#### **ARMY POSITION:**

Combat Training Centers are the heart of the Army's combat maneuver training program. They will remain the keys to developing the warfighting capabilities and lethality of Army units. They also enable the Army to refine tactics and procedures, evaluate system performance, and focus its training programs. Most importantly, the CTCs play a major role in developing tomorrow's leaders.

The CTCs encompass the National Training Center at Fort Irwin, California; the Joint Readiness Training Center at Fort Chaffee, Arkansas; the Combat Maneuver Training Center at Hohenfels, Germany; and the Battle Command Training Program, based at Fort Leavenworth, Kansas, but conducted via mobile training teams in unit locations throughout the world.

The CTCs conduct and evaluate training exercises. The Battle Command Training Program conducts computer simulation-supported command post exercises for division and corps battle staffs. The other CTC's focus primarily on brigades. All four CTCs are similar in that they are staffed with experienced officers and noncommissioned officers who serve as observer/controllers. These personnel assess unit performance during CTC exercises against a uniform standard of performance based on Army and joint doctrine and tactics. CTC training is further enhanced by the presence of an opposing force (OPFOR), a challenging, thinking enemy who is capable of replicating the operations of likely opponents (Soviet, Iraqi, etc.). Instrumentation to provide feedback to the training unit and to support data collection is also a key part of each facility. Together, these CTCs provide demanding and realistic training for Army armored, light, and special operations units at echelons from squads and crews through corps staffs under simulated combat conditions of all types.

To cope with future conflict, the Army must be prepared to commit combat-ready units with little or no notice or additional preparation. The tough, realistic and demanding training provided by the Army's CTCs is essential to ensure Army forces can meet this demanding challenge.

58 Training

#### 27. RESERVE COMPONENT TRAINING STRATEGY

The unique nature of the training challenges facing the Army National Guard and Army Reserve requires a training strategy focused on the training needs of the Army's Reserve Component soldiers, leaders, and units.

#### **ARMY POSITION:**

The Army National Guard and Army Reserve face extremely difficult training challenges in preparing their soldiers to accomplish their wartime missions. With less than 40 days per year available for individual and unit training, widely-dispersed units, and the extended process necessary to develop competent leaders, the Army's Reserve Components (RC) require a training strategy, tailored to their particular needs, that will ensure they are trained and ready when they are needed.

The Reserve Component Training Strategy, formalized in May 1989, was developed to address these unique training challenges and to enhance RC capabilities. The strategy is being implemented through the Reserve Component Training Development Action Plan (RCTDAP), which seeks to improve RC training readiness by concentrating on: improving individual proficiency; developing trained leaders; conducting battle-focused collective training based on tasks the units are expected to accomplish in combat; and providing sound training doctrine and management techniques. Lessons learned from Operation DESERT STORM are being incorporated into the current strategy. Many basic elements of the strategy will require no change. Others, such as pre- and post-mobilization training, crew level training, maintenance, and leader development will receive additional emphasis.

Another program with exceptional promise for improving RC training readiness is the Distributed Training Program. Currently under development by the Army's Training and Doctrine Command, the program is designed to use a variety of media — print, video tape, floppy disc, on-line communication, video disc, and video teletraining — to deliver instruction from Army schools directly to unit locations. When fully implemented the program will enhance training opportunities for the RC and improve standardization across the Army.

Reserve Component training and readiness have improved significantly over the past decade. In the future, the Army will continue to rely extensively on the Reserve Components for all operations beyond relatively small, short-duration contingencies. It is therefore essential that past readiness improvements in the RC be continued and expanded through programs such as the Reserve Component Training Strategy.

Training

## **MODERNIZATION**

Modernization is a continuous process by which the Army develops and fields warfighting capabilities needed to deter war and, if necessary, to fight and win. It is more than just the development and fielding of advanced weapons systems and equipment and the establishment of associated production, mobilization and sustainment bases. Equally important are the development and implementation of modern doctrine, tactics, unit designs, and leader development and training programs.

Today's armed forces are benefitting from the vision of previous military, government, and congressional leaders. The main Army systems and doctrine that were employed in Operation DESERT STORM were developed over the past several decades. Modern weapon systems, manned by professional, highly trained soldiers and led by competent leaders, are clearly essential to decisive victory. Maintaining the lethality of the Army through a disciplined modernization effort will become increasingly important as the Army gets smaller and the proliferation of sophisticated weapon systems continues around the world.

The challenge facing the Army now is to ensure that modernization of the Total Force is in fact continuous in order to assure the lethality of the force. The Army must carefully decide which requirements call for new weapon systems and which can be met by adaptations in tactics or unit designs reinforced by aggressive training. The Army has designed a coherent and integrated program that addresses each of these elements and matches the country's unparalleled technology assets with future warfighting doctrine and organizations to maximize the benefits of our scarce modernization resources as we reshape the Army.

#### 28. ARMY MODERNIZATION STRATEGY

The Army modernizes to enhance soldiers' warfighting capabilities and ability to survive in combat, taking advantage of U.S. technological strengths.

#### ARMY POSITION:

In this era of sharply declining resources, the Army has developed a modernization strategy to ensure that the smaller Army of the future has the lethality essential for victory on tomorrow's battlefields. The essence of this strategy is to pursue nearterm materiel solutions for only the most critical battlefield deficiencies — such as an improved infantry anti-tank weapon and a forward area air defense system that can defeat enemy attack helicopters at stand-off range — and to focus the limited, available, long-term modernization resources on leap—ahead technologies — such as the next generation scout helicopter and armored vehicles.

To sustain this strategy, the Army must assure adequate lethality in the near-to midterm by concentrating on improving the deployability and staying power of its forces, by upgrading systems where prudent, and by terminating programs that provide only marginal improvements or are found to be unaffordable. The Army also intends to pursue systems that leverage the quality of its soldiers, leaders, and technology, while exploiting weaknesses of potential adversaries.

The Army's modernization strategy is guided by six principles:

- Field new equipment in priority, beginning with units that are first to fight.
- Field deployable, sustainable systems that ensure the lethality and facilitate the survivability of the force.
  - Field advanced warfighting capabilities before potential opponents.
  - Design equipment for future modernization and product improvement.
- Modernize by force package (i.e. forward deployed and contingency forces; early reinforcing forces and war reserves; follow-on reinforcing forces).
- Design, build, and distribute equipment to optimize readiness and training.

#### 29. NEAR-TERM PRIORITIES

Fiscal realities have forced the Army to address only the most immediate deficiencies on the increasingly lethal battlefield.

#### **ARMY POSITION:**

The Army's strategy is to pursue near-term materiel solutions for only the most critical battlefield deficiencies. Currently, the Army's two most critical battlefield deficiencies are the inability of the infantryman to readily defeat the current and projected armored systems and the lack of adequate air defense for the maneuver elements of Army armored forces in the forward area. The Army is currently pursuing the development of two systems to rectify these deficiencies — the Javelin, formerly called the Advanced Antitank Weapon System-Medium (AAWS-M), which will replace the currently fielded Dragon antitank system, and the Air Defense Antitank System (ADATS).

The revolutionary technology of the Javelin corrects a major existing battlefield deficiency — the fact that America's dismounted infantry must place themselves at significant risk against enemy tanks in order to engage these tanks with currently fielded weapons. Javelin overcomes the Dragon's deficiencies — inadequate lethality and range, gunner vulnerability, a launch signature that is difficult to conceal, and relatively long time of flight — and will be capable of engaging targets at night and through battlefield obscurants. It is the only antitank system available that can defeat current and projected armored systems. The Javelin will provide the American soldier a fire-and-forget, medium antiarmor system with lethality and survivability that he has never had before. The Javelin program is currently in Full-scale Development, and the system is undergoing a series of wide-ranging flight, countermeasure, and qualification tests.

Many nations around the world possess significant helicopter and fixed wing aircraft ground attack capabilities. Along with the aircraft, the munitions they carry are growing in standoff capability and sophistication. ADATS was selected to provide air defense to forward maneuver elements because it can kill threat aircraft beyond their engagement range. The Army's current air defense systems lack the range and survivability to provide effective air defense for forward armored forces. Testing indicates ADATS meets or exceeds all critical requirements except reliability. The Army has restructured the acquisition program, adding two years to the Research, Development, Test, and Evaluation schedule, to allow the contractor to fix the reliability problems.

#### 30. LONG-TERM PRIORITIES

The Army will focus the limited, available, long-term modernization resources on leap-ahead technologies that ensure clear superiority — not sufficiency — over future adversaries.

#### **ARMY POSITION:**

The Army's top materiel modernization priorities for the future are the Comanche helicopter and the Armored Systems Modernization (ASM) programs.

The Comanche, so-named because the Comanche Indians were skilled scouts and fierce warriors, is the centerpiece of Army Aviation Modernization. Initial Operating Capability (IOC) will be scheduled in late 1998. Primarily designed as an armed reconnaissance helicopter, the Comanche will have a significant attack capability. The Comanche will be armed with Hellfire missiles and Hydra-70 rockets for attacking ground targets, and with air-to-air missiles and a 20mm cannon for aerial combat. It will replace the aging fleet of tactically and technically obsolete AH-1, OH-58, and OH-6 helicopters. It is designed to complement, not replace, the Apache helicopter. Comanche will be significantly more lethal, survivable, supportable, and deployable than the systems that it is designed to replace, and, as such, its development and fielding are critical to the future of Army aviation. It will allow the Army to reduce the size of its helicopter fleet while increasing its lethality, e.g., 25 Comanches will replace the 34 helicopters in the attack battalion of a light infantry division with a dramatic increase in lethality. It is easily maintained and extremely deployable — capable of self-deployment to 1260 nautical miles, and designed to be prepared for deployment by Air Force aircraft (or returned to flyable status) in less than 30 minutes. On April 5, 1991, the Army selected the Boeing-Sikorsky team to continue into the Demonstration/Validation (prototype) phase of the acquisition cycle.

The Armored Systems Modernization (ASM) program is the master plan to modernize the Army's combined arms combat systems. It will provide the ground component of the future Army with significantly increased lethality, mobility, and survivability. The ASM program optimizes commonality, enabling the Army to simultaneously field six armored systems: the Block III tank, the Advanced Field Artillery System (AFAS), the Combat Mobility Vehicle (CMV), and the Future Infantry Fighting Vehicle (FIFV) on the common protection level chassis; and the Line-of-Sight Antitank (LOSAT) and the Future Resupply Vehicle-Ammunition (FARV-A) on Bradley-based medium protection chassis. By optimizing commonality and pursuing next generation technology, the ASM program will field a force that is more combat effective and more cost effective to produce and maintain.

#### 31. STRATEGIC LOGISTICS PROGRAM

The Strategic Logistics Program, designed to improve logistics support worldwide, is the keystone Army initiative to streamline and modernize Army logistics operations.

#### **ARMY POSITION:**

The Strategic Logistics Program (SLP), a long-term initiative, began in the early 1990s to improve the responsiveness of the Army's logistics system and to modernize the Army's logistics processes for the 21st century. It is designed to facilitate the integration of functional logistics requirements and procedures in the areas of supply, maintenance, transportation, services, and distribution. The program's major goals are to enhance the combat commander's ability to make timely tactical decisions based on real-time logistics data and to improve the logistics support to the soldier in the field. Its major objectives are to improve efficiency, provide Army-wide visibility of supplies, and reduce costs.

The major near-term objective of SLP is the integration of the wholesale and retail logistics systems into a single system. This integration will permit Army logistics managers to acquire and locate supplies across the Army, and to reduce redundant inventories and the processing time for supply requests. It will also improve the process for computing future spare parts requirements. Another aspect of this initiative will be the substantial improvement in equipment readiness as a result of the increased ability of weapon system managers to track information on systems and on the availability of repair parts and activities. The Army will also phase-in a new Department of Defense program for funding depot-level repairables. Beginning in January 1992, Army major commands will use their own operating funds to replenish these items. The implementation of these initiatives is projected to achieve the designated \$4.2B Defense Management Review Decision savings by Fiscal Year 1995.

With respect to longer-term initiatives, the Strategic Logistics Agency (SLA), the control headquarters created to manage SLP, is the single integrator for the process and functional analyses required to modernize and integrate Army logistics functions. The Agency is conducting a comprehensive, functional analysis of logistics requirements in the 21st century. Analysis results will be used to develop the master plan for the Logistics System (Future), the next generation of logistics management systems. These systems will be an integral part of the emerging Department of Defense consolidation efforts.

#### 32. THE INDUSTRIAL BASE

The Army seeks to maintain a responsive industrial base to support military operations in peacetime and war. This is, however, a national issue that requires a national solution.

#### **ARMY POSITION:**

Operation DESERT STORM taxed U.S. logistic systems and the industrial base. While the quantity of major combat end items (e.g., tanks and aircraft) was sufficient, the timely provision of many support items (desert uniforms, T-Rations, chemical defense equipment, certain munitions, and repair parts) presented a challenge. This challenge, somewhat alleviated by the six-month preparation period, was met by a combination of accelerated or surged production and reallocation of war reserve assets. The lesson, however, was clear: the United States must retain capabilities to support its national military strategy that go beyond normal peacetime research, development, and acquisition but also include the ability to surge for major contingencies and reconstitution to expand the force and sustain it in a major war. The Army's industrial readiness strategy, therefore, seeks to maintain a viable, responsive industrial base that supports both technology development and production. The essential components of this strategy are adequate war reserves, maintaining and continuously modernizing the required laid-away industrial base and facilities, and striving to expand the industrial surge potential for critical items needed to equip and maintain U.S. forces in combat.

The state of the U.S. industrial base is critical to the Army's ability to reconstitute the force. Yet with a smaller force, the Army will need less equipment and will require production lines for shorter periods of time. Further, as equipment production goals are met and production ceases, important elements of the industrial base can be expected to be markedly less responsive in crises. On the other hand, stretching production to keep the base "warm" for longer periods substantially increases direct costs, possibly diverting resources from other essential combat capabilities and force quality. Moreover, stretching production may itself cause a gap in fielding essential advanced technology equipment. In an era of severely constrained resources, there will be no easy solutions to this dilemma. In any case, the Army's contribution to the resolution of this issue should be made in concert with a national plan for the industrial base.

The Secretary of the Army has directed an assessment of the ability of the industrial base to meet Army requirements in operations similar in scope to Operation DESERT STORM. The assessment began in February 1991 and is due to be completed by the end of the year. The study will lead to recommended policies and procedures for future contingency support planning.

#### 33. SUSTAINMENT

The Army's ability to execute its strategic roles depends heavily on U.S. capabilities to deploy rapidly and to sustain a full range of military operations for periods of uncertain duration.

#### **ARMY POSITION:**

Sustainment is the capability to support soldiers' needs for as long as it takes to accomplish their missions. As the Army structures its logistics programs to meet the force projection requirements of the new national military strategy, it will require sustainment programs that support both training and peacetime activities and the warfighting needs of the theater commanders-in-chief. Adequate sustainment will be essential for the maintenance of a trained and ready Army in peacetime and for success in actual operations.

Sustainment programs take years to develop and implement. Past sustainment planning and programs allowed the Army to provide shelter, meals, water, and sanitation support in the initial bare-base environment of Operation DESERT STORM, and, at the same time, to provide these forces with sufficient equipment, supplies, and ammunition to conduct combat operations against a modern and well-equipped army.

An example of the utility of these programs was the Army's use of prepositioned equipment, such as Theater Reserve and POMCUS (Prepositioned Overseas Materiel Configured to Unit Sets) stocks to rapidly provide essential equipment and critical munitions to U.S. forces and, in some cases, to sister services and coalition partners. Initial support systems for water purification units, rations, tentage, building and barrier materials, shower systems, and materiel handling equipment were obtained from Army prepositioned ships located at Diego Garcia in the Indian Ocean. These types of supplies and equipment are essential for no-notice operations in austere environments. Other items of equipment and supplies were deployed into the theater from theater reserve stocks around the world and from European POMCUS stocks.

The Army will continue to modernize and replenish current sustainment stockage levels to preserve its capability to fight and win worldwide. It will also refine and improve these programs based on the experience of Operation DESERT STORM and the requirements projected for the smaller, more CONUS-based Army of the future.

## LEADER DEVELOPMENT

Proficient and professional civilian and military leaders are essential to the Army's success in both its peacetime missions and in combat. There is no substitute for leaders who are competent in the skills of their profession, confident in their abilities, responsible for their soldiers, and committed to the defense of the United States. The leaders of Operation DESERT STORM, developed through well-designed and executed leader development programs, epitomized these characteristics.

The Army is committed to the development of its leaders at all levels. This commitment is extensive and based on the driving principle that leaders must be appropriately prepared — competent and confident of their ability to lead — before assuming leadership positions. The Army develops these leaders through a dynamic leader development program based on the three pillars of leader development — institutional training, operational assignments, and self-development. The Army's school system (institutional pillar) — supplemented by a broad set of civilian education programs in essential areas not available in military schools — provides the formal education and training in general areas and specific job-related and basic leadership skills. Operational assignments allow leaders to apply and build on the formal education process, and self-development continues through leaders' careers to expand their knowledge base.

In the years ahead, the United States and the Army will face unprecedented challenges in an increasingly complex, volatile, and unpredictable world. It will be essential that the Army have leaders at all levels who are equal to those challenges. The development of quality officers, warrant officers, noncommissioned officers, and civilian leaders of the Total Force is the most enduring contribution the Army can make to the future.

#### 34. OFFICERS

The Army is committed to developing competent, confident officers for the Total Force who are equal to the challenges it will face in the years ahead.

#### ARMY POSITION:

The officer leader development program focuses on progressive and sequential education and training experiences to produce qualified officers capable of exploiting the full potential of present and future Army doctrine, equipment, and force structure. It is based on the three pillars of leader development.

The Military Qualification Standards (MQS) System provides the framework for officer leader development. It establishes a clearly defined set of knowledge and skills, both common and branch-related, which are the basis for all education and training that takes place before commissioning and during the officer's career. MQS is the primary tool the Army uses to coordinate, integrate, and link all of the education, experience, and training requirements of an officer's career.

Key programs in the institutional pillar of officer development include education and training prior to commissioning (e.g., U.S. Military Academy, Reserve Officers' Training Corps, Officers' Candidate School), branch officer basic and advanced courses, Combined Arms and Services Staff School, Command and General Staff Officer Course, the Advanced Military Studies Program, the War College, and the Joint Professional Military Education programs.

Operational assignments provide officers the opportunity to practice what they have learned. Competence and confidence can only be genuinely developed by the actual application of knowledge and skills acquired in institutional training. Self-development through professional reading, participation in correspondence and advanced degree programs, independent study, research, writing, and self-assessment, round out the officer development process.

Reserve Component (RC) officer development is built around the same structure as the Active Component program. Additionally, the RC Officer Education System includes exportable or abbreviated resident instruction in a branch level advanced course and in the Command and General Staff Officer Course.

As leaders, officers have extensive responsibilities — to their soldiers, to the Army, and to the Nation. Developing quality officers to serve the Nation and to lead its soldiers is one of the Army's most important responsibilities, today and in the future.

#### 35. WARRANT OFFICERS

In an era of rapidly advancing technological developments and hightechnology systems, a well-trained Total Army Warrant Officer Corps will be a critical element of the future Army.

#### **ARMY POSITION:**

Army warrant officers are a select group of highly skilled specialists who provide valuable technical expertise in a variety of fields. They ensure the smooth execution of numerous administrative, logistics, maintenance, and tactical missions.

Warrant officer training and development begins with entry into the warrant officer program and continues throughout a warrant officer's career. Premised on the three pillars of leader development, the warrant officer leader development program is a progressive and sequential training program that requires certification at all levels.

Warrant officer candidates must successfully complete the Warrant Officer Candidate School where they gain knowledge of general military subjects and the basic common skills required of all warrant officers. Technical and tactical skill training and certification develops the candidate's proficiency in those skills and tasks that are required in their individual areas of expertise.

Senior and master warrant officer training progressively reinforce technical knowledge and develop the skills necessary to serve successfully in senior-level positions such as systems integrators, managers, and trainers.

The Army is in the process of developing a Warrant Officer Leader Development Action Plan, applicable to all Active and Reserve Components, which will address issues and direct actions to refine the current program.

#### 36. NONCOMMISSIONED OFFICERS

The Army has made great strides in Total Army Noncommissioned Officer (NCO) leader development in recent years. The NCO corps is the backbone of the Army and must remain professionally competent and confident for the future.

#### **ARMY POSITION:**

The Army's NCO leader development programs, also based on three pillars of leader development, develop in its NCOs the necessary knowledge, skills, and attitudes to train soldiers and to lead them to victory in battle.

Institutional training courses offered by the NCO Education System (NCOES) are designed to prepare NCOs for leadership responsibilities at the next higher grade. As such, they are sequential and progressive, each building on previous training. From the Primary Leadership Development Course (PLDC) for sergeants to the Sergeants Major Course, NCOES stresses, in progressively greater detail, leadership, communication skills, training, professional skills, and resource management.

Operational assignments — where on-the-job training and a variety of challenging duty assignments prepare NCOs to lead soldiers — are part of the traditional method of training NCOs to be leaders. The NCOs apply the skills acquired in institutional training to lead, train, coach, care for and be the mentor for the soldiers in their units.

Self-development involves individual initiatives, such as the use of learning centers at Army posts, correspondence courses, and college degree programs, to acquire and sustain necessary skills. A key component of self-development will be the implementation of the Self-Development Test (SDT) in the fall of 1991. The SDT will serve as the vehicle for NCOs to measure and guide their growth in professional competence. The SDT will be a personal responsibility and will become one of the key factors in determining NCO promotions, assignments, school selection, and retention.

Army NCOs, both in the Active and Reserve Components, must teach warfighting and job skills to their subordinates, counsel them, develop junior leaders, assess training, and ultimately lead soldiers in combat. The Total Army NCO leader development program is designed to prepare NCOs to meet this challenge.

#### 37. RESERVE COMPONENTS

The continued development of competent and confident Army National Guard and Army Reserve leaders will be essential to the ability of the Total Force to execute its strategic roles worldwide.

#### **ARMY POSITION:**

Reserve Component (RC) leader development programs are based on the same three pillars as the Active Component. The programs are, however, modified to meet the unique circumstances facing the RC leader. The instruction and experience a RC leader gains is progressive and sequential and is based on time available and individual needs.

Institutional training for the RC includes professional development and functional resident courses at active Army schools and courses tailored to be exportable and taught at RC schools or used in individual study programs. The RC Officer and NCO Education Systems mirror those of the Active Component. Self-development phases for home study are also provided and often required prior to, or in addition to, attending particular branch schools.

Significant strides are being made in exportable training courses for the RC. The Warrant Officer Entry Course, an exportable program, is a four-week course conducted at Fort McCoy, Wisconsin. Additionally, effective in October, 1991, the appropriate RC NCO Education System courses will become prerequisites for promotion. All of the required courses are exportable and are taught by RC training institutions.

Operational assignments will continue to be the greatest challenge for the RC leader. Primarily as a result of the wide dispersion of many RC organizations, progressive and sequential assignments will take longer and require direct command involvement to ensure leaders are properly assigned and developed.

Self-development has always been the hallmark of the RC leader. One of the major initiatives of the RC Leader Development Action Plan, currently under development, will be to promulgate improvements to the effectiveness of current self-development programs for the RC.

Future RC leaders will be challenged as the Army reshapes the Total Force for the next century. Reserve unit call-up during Operation DESERT STORM demonstrated that an effective RC leader development program will be critical to success in future operations.

#### 38. CIVILIAN PERSONNEL

The Army's civilian work force fulfills a vital role in the trained and ready Army. Civilian education and development programs are structured to prepare civilian leaders for the full scope of their responsibilities.

#### **ARMY POSITION:**

The Army has made great strides over the past years in strengthening the professionalism and leadership abilities of Army civilians. In an example of these efforts, on April 10, 1990, the Chief of Staff of the Army approved the Civilian Leader Development Action Plan that established a civilian leader development program modeled after the officer and NCO education systems. The plan recommends programs to integrate the efforts of Army civilian and military members into a total corporate culture. It recommends adopting private sector management and leader development models to assist in the development of civilian leaders. It also institutionalizes required leadership training for initial entry, supervisory, and managerial employees. The Action Plan is currently being implemented.

The Army Civilian Training, Education, and Development System (ACTEDS) provides for the systematic development of civilian leaders by blending progressive and sequential work assignments with formal training. These plans serve as road maps for professional development from entry to senior executive level positions and are an effective complement to the Civilian Leader Development Action Plan.

Civilian leadership training programs for interns, supervisors, and managers are conducted by the Center for Army Leadership at Fort Leavenworth. The Army Management Staff College (AMSC) also prepares Army civilians and a select group of officers for advancement to key leadership and management positions. The college's 14-week curriculum is designed for GS and GM 13s-15s and those GS 12s with exceptional potential. In addition to these programs, certain exceptional GS and GM 14s and 15s are selected to attend senior service colleges to prepare them for future entry into the Senior Executive Service.

As the Army moves civilians into leadership positions formerly held by military officers in fields such as installation and acquisition management, the need for top quality civilian leaders will be reinforced. Effective leader development programs for Army civilians will remain an important element of Army efforts to shape the Total Force for the future.

## 39. ARMY ACQUISITION CORPS

The Army is fully committed to a more effective and efficient organizational structure for discharging major acquisition responsibilities to ensure that the American soldier is equipped with the best equipment possible.

#### **ARMY POSITION:**

The Army Acquisition Corps is a reality today and through it, current and future needs for world class acquisition professionals will be met on a planned and systematic basis.

The objective of the Army Acquisition Corps is to develop a dedicated pool of highly qualified military and civilian specialists to fill designated critical acquisition positions. Today the Corps consists of over 2,300 officers and over 500 civilians. Their entry into the program will allow the enhancement of their acquisition and management skills through the integration of past experience, education, training, and selection and promotion processes. The Corps' call for volunteers has met with exceptionally positive responses, as its rapid growth in a short time demonstrates.

The development plan for the military member includes a fully funded advanced degree in an acquisition-related speciality, training in acquisition management skills, and assignment to an acquisition-related position. Additionally, brigade and battalion command equivalency has been afforded to the corps by project and product management opportunities. To ensure equivalent advancement opportunities with their peers, promotion policy and guidance have been developed to maximize advancement potential to higher ranks and positions of greater responsibility.

Key aspects of the civilian program incorporate centralized career management, a centralized referral system, programmed access to training and developmental opportunities, fully funded advanced degree programs, and continued competitiveness for advancement.

The members of the Army Acquisition Corps are dedicated to providing the best equipment possible to the U.S. soldier.

#### ACRONYMS and ABBREVIATIONS

AASLT AIR ASSAULT

AAWS-M ADVANCED ANTI-TANK WEAPON SYSTEM-MEDIUM

ABN AIRBORNE

AC ACTIVE COMPONENT

ACAP ARMY CAREER AND ALUMNI PROGRAM ACE ARMORED COMBAT EARTHMOVER

ACOE ARMY COMMUNITIES OF EXCELLENCE

ACR ARMORED CAVALRY REGIMENT

ACTEDS ARMY CIVILIAN TRAINING, EDUCATION AND DEVELOPMENT

SYSTEM

ADATS AIR DEFENSE ANTITANK SYSTEM

AFAS ADVANCED FIELD ARTILLERY SYSTEM

ALB AIRLAND BATTLE

ALB-F AIRLAND BATTLE-FUTURE

AMSC ARMY MANAGEMENT STAFF COLLEGE

ARCENT ARMY COMPONENT TO CENTRAL COMMAND

ARNG ARMY NATIONAL GUARD

ASM ARMORED SYSTEMS MODERNIZATION
ATACMS ARMY TACTICAL MISSILE SYSTEM
BRAC BASE REALIGNMENTS AND CLOSURES
CALL CENTER FOR ARMY LESSONS LEARNED

CENTCOM CENTRAL COMMAND

CFE CONVENTIONAL ARMED FORCES IN EUROPE

CINC COMMANDER IN CHIEF

CMV COMBAT MOBILITY VEHICLE
COMSEC COMMUNICATION SECURITY
CONUS CONTINENTAL UNITED STATES

CRAF CIVIL RESERVE AIR FLEET

CS COMBAT SUPPORT

CSS COMBAT SERVICE SUPPORT
CTC COMBAT TRAINING CENTER
CTF COMBINED TASK FORCE
DOD DEPARTMENT OF DEFENSE

DODDS DEPARTMENT OF DEFENSE DEPENDENT SCHOOLS DRAO DEFENSE RECONSTRUCTION ASSISTANCE OFFICE

ECAP ENVIRONMENTAL COMPLIANCE ACHIEVEMENT PROGRAM FARV-A FUTURE ARMORED RESUPPLY VEHICLE AMMUNITION

FIFV FUTURE INFANTRY FIGHTING VEHICLE

FSS FAST SEALIFT SHIPS

HEMTT HEAVY EXPANDED MOBILITY TACTICAL TRUCK

JAC JOB ASSISTANCE CENTER

Joint-STARS JOINT SURVEILLANCE AND TARGET ATTACK RADAR SYSTEM

KERO KUWAITI EMERGENCY RECOVERY OFFICE LORAN-C LONG RANGE NAVIGATION VERSION C

LOSAT LINE-OF-SIGHT ANTITANK
MAC MILITARY AIRLIFT COMMAND

MLRS MULTIPLE LAUNCH ROCKET SYSTEM
MOS MILITARY OCCUPATIONAL SPECIALTY
MPS MARITIME PREPOSITIONING SHIPS
MQS MILITARY QUALIFICATION STANDARDS

MSC MILITARY SEALIFT COMMAND

MSR MAIN SUPPLY ROUTE

MTMC MILITARY TRAFFIC MANAGEMENT CONTROL NATO NORTH ATLANTIC TREATY ORGANIZATION

NCO NONCOMMISSIONED OFFICER

NCOES NONCOMMISSIONED OFFICER EDUCATION SYSTEM

NTC NATIONAL TRAINING CENTER

OPFOR OPPOSING FORCE

OSD OFFICE OF THE SECRETARY OF DEFENSE

PLDC PRIMARY LEADERSHIP DEVELOPMENT COURSE

POMCUS PRE-POSITIONING OF MATERIAL CONFIGURED TO UNIT SETS

RC RESERVE COMPONENTS

RCTDAP RESERVE COMPONENT TRAINING DEVELOPMENT ACTION PLAN

RDT&E RESEARCH, DEVELOPMENT, TEST & EVALUATION

RIF REDUCTION IN FORCE

ROTC RESERVE OFFICER TRAINING CORPS

SDT SELF-DEVELOPMENT TEST

SERB SELECTIVE EARLY RETIREMENT BOARDS

SINCGARS SINGLE CHANNEL GROUND AND AIRBORNE RADIO SYSTEM

SLA STRATEGIC LOGISTICS AGENCY
SLGR SMALL LIGHTWEIGHT GPS RECEIVER
SLP STRATEGIC LOGISTICS PROGRAM
SOF SPECIAL OPERATIONS FORCE

START STRATEGIC ARMS REDUCTIONS TALKS

SWA SOUTHWEST ASIA

TAO TRANSITION ASSISTANCE OFFICE

TOW TUBE LAUNCHED, OPTICALLY TRACKED, WIRE COMMAND-LINKED

**GUIDED** 

TRADOC TRAINING AND DOCTRINE COMMAND

USCINCEUR COMMANDER-IN-CHIEF OF U.S. FORCES IN EUROPE

# ARMY FUNDAMENTAL IMPERATIVES

# Quality

Attract and retain high quality soldiers and civilians

# **Doctrine**

Maintain forward-looking warfighting doctrine

# **Force Mix**

Maintain the appropriate mix of armored, light, and special operations forces required by national strategy

# **Training**

Conduct tough, realistic training

# Modernization

Modernize continuously to ensure Army forces have needed warfighting capabilities

# **Leader Development**

Develop competent, confident leaders